

DISTRO

041213 #86

engadget

DREAM STREAMER

**THE
RETURN
OF
ROKU'S
SIMPLE
SET-TOP
BOX**

ROKU



**EARLY
IMPRESSIONS
OF OUYA'S
ANDROID
CONSOLE**

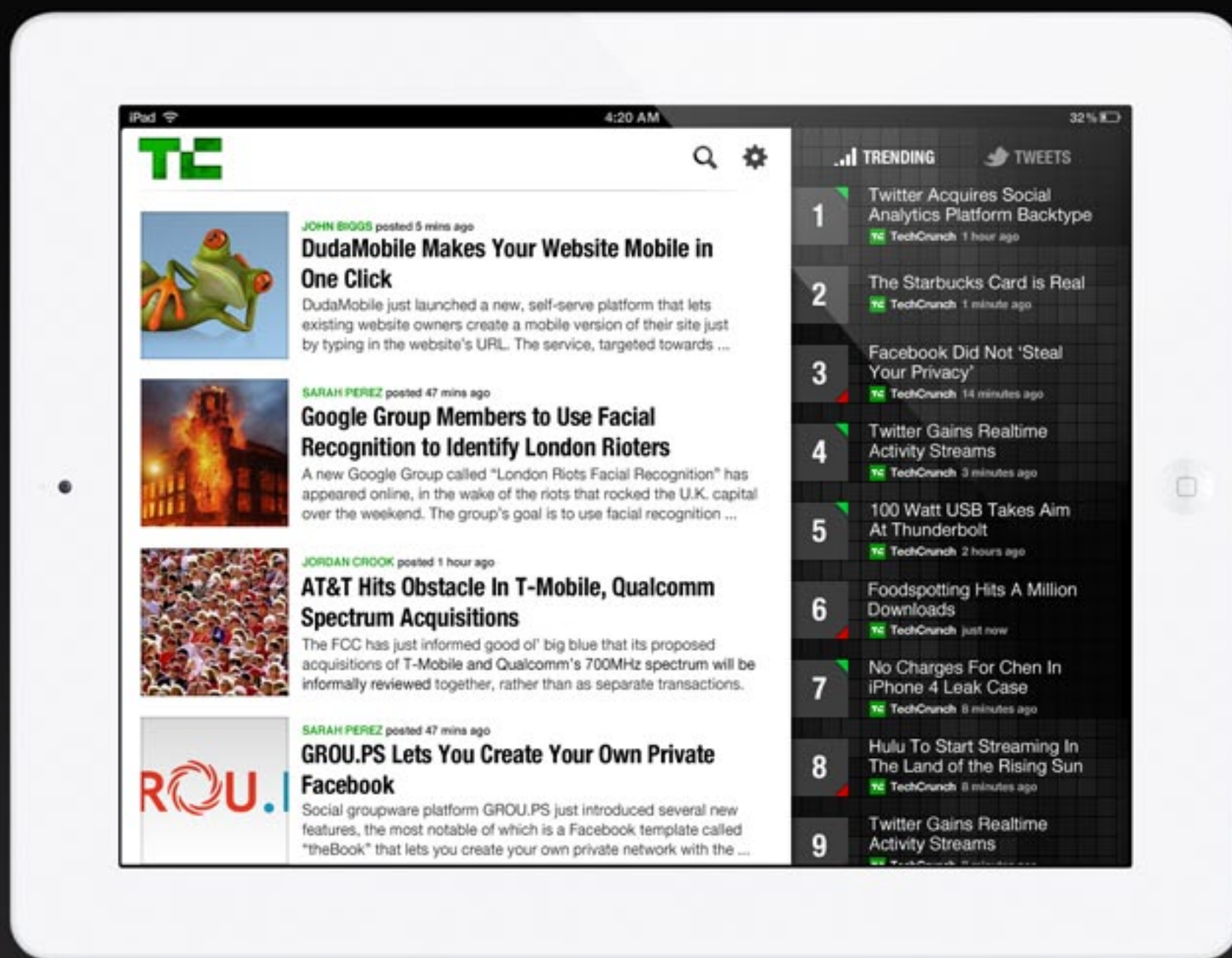
**SIZING UP
THE GALAXY
NOTE 8.0**

**ELON MUSK
ON SERVICE
AND THE
TESLA MODEL X**



TechCrunch

The Inside Story On Innovation.



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ISSUE 86

DISTRO

04.12.13

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REHASHED
Cloaked
Cannons and
Funded Fiber

TM

TIME MACHINES
Tiny Tunes

On the Cover:
Photograph by
Will Lipman for Distro



THE FIBER FIGHT FOR AUSTIN'S FUTURE

DISTRO
04.12.13

EDITOR'S
LETTER



There comes a time in every modern geek's life when they seriously consider moving to Kansas City, simply to gain access to the wonder that is Google Fiber. This week, would-be bandwidth pilgrims gained another potential destination: Austin, Texas. Yes, the increasingly trendy SXSW locale has officially signed on with Google to start rolling out the connectivity in 2014. Sadly, we're told to not expect much in the way of access until the summer of next year, which seems like ages, but that should give you plenty of time to save up for a down payment. Austin housing rates are soaring of late.

Not wanting to be left out of the party, AT&T promptly announced its own initiative to bring high-speed fiber connectivity to Austin just hours after Google. Ma Bell is promising 1 Gbps speeds and the same sort of accessibility and contracts as Google's service, thus creating a very interesting battleground for high-speed connectivity. It's the sort of fiber-optic gluttony that we'd all like to indulge in some day, and if Google can keep pushing AT&T like this, perhaps some day we actually will.

We got what looks to be our first

peek at the front glass of a purported next-generation iPad this week, a single shot of a pane of glass held by a gloved hand. This seems to point to a redesigned iPad that would match more closely the case shape of the iPad mini and the most recent iPod touch, with slimmer bezels and, perhaps, a thinner overall profile. Still no formal word on when exactly this device will be released, but indications are that it won't be long now.

Meanwhile on the Microsoft side of the aisle, the *Wall Street Journal* got what it considers solid information on the next generation of Surface tablets, including a 7-inch version. These tablets are due this year, though it's unclear exactly when and also whether they will be ARM or Intel-powered. Given the battery life and cooling issues of the Surface Pro, one might be inclined to hope for the ARM route. Regardless of processor, a smaller — and more importantly cheaper — Surface tablet can't come soon enough.

If you ask me, a new Xbox can't come soon enough either, and we got some more bits of supposed information about it — bits that we presume will continue to trickle out over the course of the next



“Some rumors are even pointing to a pair of new Xbox devices, one more media-focused than the other.”


month or so. First up is another indicator that the system will be powered by an AMD x86 CPU, which falls in line with earlier reports. There were also reports of a very media-centric next-gen Xbox, with HDMI-in like a Google TV, enabling overlays and full DVR control.

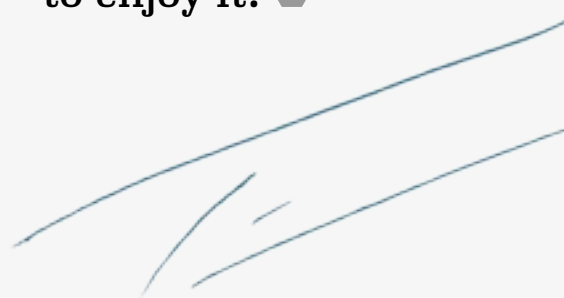
Some rumors are even pointing to a pair of new Xbox devices, one more media-focused than the other, and the sale of Mediaroom to Ericsson this week might just bolster those claims. The IPTV unit was beginning to feel a bit out of place amidst all the development going into the Xbox side of the business, so hopefully Ericsson can give it a good home and keep U-verse users happy.

Samsung raised the stakes again in the smartphone size war. Twice. It announced not one but two phones in the new Galaxy Mega class. The first is a 5.8-inch monster with a disappointing qHD (960 x 540) screen, 8GB of storage and 1.4GHz dual-core processor. Obviously this is for those who value quantity over quality. For those who need even more, the 6.3-inch version should suffice, featuring an HD (likely 720p) display and up

to 16GB of internal storage with microSD expansion. Whether either of these devices comes to the US remains to be seen, as does whether anyone will buy them.

Finally, bad news from another Android-powered Kickstarter success, GameStick. The company announced that it is shipping early developer units, but those units going to the rest of the backers are being delayed until June. The company blamed demand and shipping issues, but perhaps after the reception of the early backer OUYA edition, the company decided it needed a little more time to get things shipshape.

In this week's Distro you'll find my review of that edition of the OUYA, which perhaps could have used another few months in the oven. We also have reviews of the Samsung Note 8.0 and the Roku 3. I interview Tesla's Elon Musk and get his thoughts on what it'll take for EVs to go mainstream and just when they're going to release a car normal people can afford. Ross Rubin examines the implications of Facebook's new Home in Switched On while Joshua Fruhlinger retells a harrowing tale of modern road rage. Finally, Daniel H. Wilson, author of *Robocalypse*, kindly sits down for Q&A. It's all waiting for you just below, and I think you're going to enjoy it. 



TIM STEVENS
EDITOR-IN-CHIEF,
ENGADGET



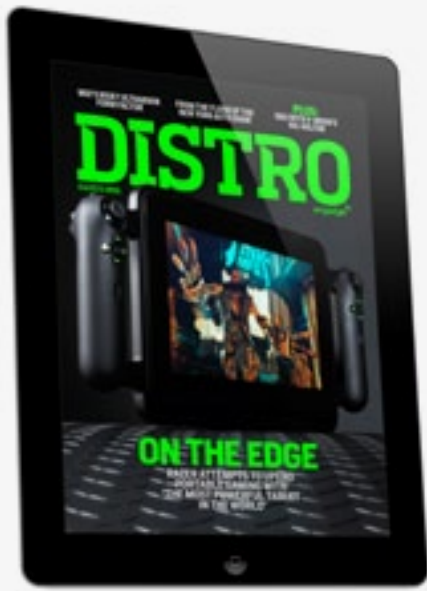
RECHARGING AHEAD, SICK SEARCHING AND THE UNSOLUTION



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INBOX



RAZER EDGE PRO
ISSUE 85,
APRIL 5TH, 2013

“It’s not just a tablet. It’s an actual handheld console with physical but-

tons. That being said, imagine how terrible the battery life on this thing will be. There’s a reason the 3DS isn’t a super-powerful beast with PS3-quality graphics, because the battery life would be horrendous.”

— **A.TARANTINO1984**

“Ambitious, exciting, BUT ultimately impractical.”

— **NGHELAM**

“Battery tech. We need to improve on battery tech.”

— **DABEARS**

“Guys, it is a great first attempt, remember there always has to be someone first!”

— **GREENLIPS2510**

MSI SLIDEBOOK S20
ISSUE 85,
APRIL 5TH, 2013

“1,920 x 1,080 is considered premium, while seven hour battery life is a rarity. Has computer innovation been stagnant?”

— **JUST_ANOTHER_ENGADGET_USER**

“It seems that a lot of companies love to release laptops with gimmicky features, but those features rarely do anything more than make the laptop annoying to use.”

— **SETHMEYERS**

**WHEN WE GOOGLE
TOO MUCH**
ISSUE 85,
APRIL 5TH, 2013

“What’s more worrying is that doctors nowadays Google a lot of things.”

— **ILH**



“I wish I hadn’t used the internet to read this article because now it has me self-conscious about my own internet usage habits.”

— JORDANWEBBER

“In my experience, it’s handy to have information available without having to memorize it. Saves room for the stuff I use all the time, particularly handy in coding.”

— COVARR

UNCONVENTIONAL, BUT NOT UNCOMPROMISING
ISSUE 85,
APRIL 5TH, 2013

“The problem with T-Mobile’s approach is they are still overcharging people, particularly on the data plans and the assumption that you care about unlimited minutes in a data driven world. Just because Verizon / AT&T are ripping their people off does not mean being slightly less of a rip-off is any better.”

— WEAPON

BMW CONNECTED APPS
ISSUE 85,
APRIL 5TH, 2013

“Apparently BMW doesn’t know their owners don’t only own iPhones... Reminds me of another car company that recently realized they were losing sales supporting only HTC devices.”

— SHINYPIXELS

“Hopefully BMW doesn’t pull navigational data from Apple Maps...”

— CHAMPION1229

MERCEDES-BENZ B-CLASS
ELECTRIC DRIVE
ISSUE 85,
APRIL 5TH, 2013

“What could be more compelling than driving a slow car, perpetually on ‘E’?”

— PETERJACKSON

“It will take brands like Mercedes and BMW before electric takes off; people need trusted brands before they make the jump.”

— LOB



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EYES-ON

JOEY ROTH CERAMIC SPEAKER SYSTEM



AN AESTHETIC SOUND MACHINE

Ceramic speaker systems pop up on the regular, but one set in particular has nabbed a prolonged gaze. Joey Roth not only combined porcelain, wood and metal to construct the Ceramic Speaker System, but also minimally transformed each material to retain its individuality.

THE DAMAGE: \$1,095

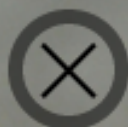


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EYES-ON

JOEY ROTH CERAMIC SPEAKER SYSTEM



CHOICE MATERIALS

The speakers are constructed from porcelain, cork and Baltic birch. Plastic was kept out of the units save for the necessary electronic components.

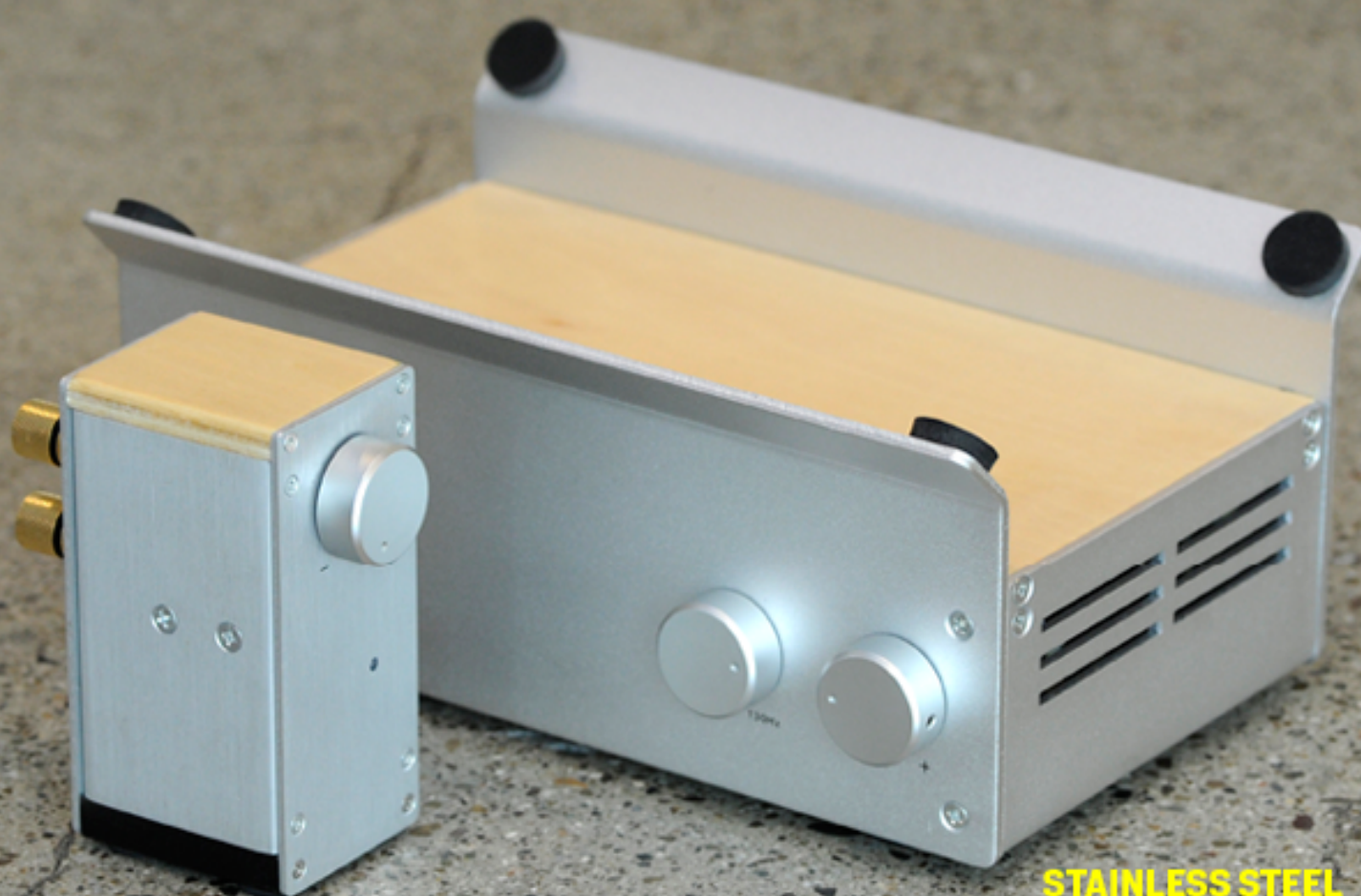
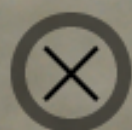


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EYES-ON

JOEY ROTH CERAMIC SPEAKER SYSTEM



STAINLESS STEEL

Adding some visual contrast, the bundle's amplifier and subwoofer stand are both made out of stainless steel with silver control dials to complete the dashing look.



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EYES-ON

JOEY ROTH CERAMIC SPEAKER SYSTEM



BLACK AND WHITE

The porcelain shells keep their white coat here and, along with black speakers, provide a refined look that keeps overall design in focus.





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PRICE: \$100

AVAILABILITY:
APRIL 12TH

THE BREAKDOWN:
FACEBOOK HOME
GETS COZY ON A
DEDICATED 4.3-INCH
HTC HANDSET WITH A
SIMPLE DISPOSITION.

HTC FIRST

On the spec sheet, the HTC First isn't going to take anybody's breath away. It's a mid-range phone with 1.4GHz dual-core Snapdragon 400 processor, 1GB RAM, 5-megapixel rear camera, 1.6-megapixel front cam, Android 4.1 and a 4.3-inch (720p) display. The First won't be the only device featuring Facebook Home, but the idea is for the First to offer more optimizations in the experience: it's a cleaner setup process since it's pre-loaded on the phone, and it can take advantage of a few additional service integrations that legacy devices won't offer.

At 125.6 x 64.93 x 8.96mm and 4.37 ounces, the First is one slender and lightweight handheld. We're also pleasantly surprised by its rounded edges and matte, rubberized shell — both result in a comfortable and pleasant feel when cradled in the hand. The 4.3-inch, 720p screen seemed bright enough under the demo room's task lighting, though it's obviously not as sharp as the One's. Flipping through Home's UI

felt zippy enough thanks to that dual-core Snapdragon processor, but it didn't strike us as a super-speedster either. The First appears to be aimed not at power users, but at Facebook connoisseurs that simply want to be connected to friends and family as often as possible.

Taking a brief tour of the phone's exterior, the First doesn't have a fancy dedicated Facebook button or removable battery. A volume rocker is featured on the left side, while a power button and 3.5mm headphone jack are housed on the top. Residing on the phone's right is the micro-SIM tray and micro-USB charging port. Hanging out on the bottom is a speaker grille, and a camera with LED flash lives on the top-left corner of the back. As for the front, the 4.3-inch panel naturally takes up the bulk of the real estate, with an average-sized bezel to the sides, 1.6-megapixel cam and proximity sensor just above the screen and a setup of three capacitive buttons (back, home and menu) on the bottom. On the whole, the First strikes us as a pretty simple phone, and its design reflects that.



BLACKMAGIC POCKET CINEMA CAMERA & PRODUCTION CAMERA 4K



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A sub-\$1,000 price tag makes any product a relative steal on the floor of NAB — impressive specs and industry-standard compatibility are just icing on the cake. If such figures are any indication, however, Blackmagic's new Pocket Cinema Camera is potentially a very solid buy at \$995. It packs a Super 16 Cinema 1080HD sensor with 13 stops of dynamic range, CinemaDNG RAW recording, SD card storage, micro-HDMI monitoring and a Micro Four Thirds lens mount. We got an early look at the shooter on the

showroom floor, and the compact size is truly striking — the body is comparable in size to any other mirrorless camera, though it definitely pushes the limits of what we'd consider pocketable. There's a very sharp built-in matte LCD for viewing footage and adjusting settings, and the build is quite solid — it's significantly heavier than you'd expect.

Naturally, the camera isn't as capable as Blackmagic's pricier NAB model, the Production Camera 4K, which also made its debut. With that flavor, \$3,995 buys you a Super 35 sensor with native Ultra HD and 4K support, a built-in SSD recorder, compressed CinemaDNG RAW and compatibility with EF lenses. We spent a few minutes with that model as well, and were equally impressed. The screen was very bright, sharp and not at all reflective, and the camera includes your standard array of inputs and outputs, including dual mic jacks, an SDI port, power and control.

PRICE: \$995 AND \$3,995

AVAILABILITY: JULY 2013

THE BREAKDOWN: BLACKMAGIC'S NEWEST PAIR OFFERS BOTH POCKET-SIZED AND PRO-STYLED SHOOTERS AT ATTRACTIVE PRICE POINTS.



G-TECHNOLOGY G-DOCK EV

We have a feeling 4K is going to be a major theme at this year's NAB, which also means we'll be seeing a good deal of hardware that can actually handle such high-res content. Mostly, we're talking pro cameras and the like, but at least one company will be showing off some professional-grade hard drives — after all, you're gonna need a solid storage solution to process those supersize files, right? G-Technology just introduced the “Evolution” family of products, the centerpiece of which is the G-Dock ev, a mini-tower with two hard drive modules and dual

Thunderbolt connections. What you put in those hard drive slots is up to you: the company is offering both a 9.5mm, 7,200RPM drive (rated for 136 MB/s transfers) and a beefier 15mm cartridge promising 250 MB/s. Once you choose your drives, you can arrange them in a RAID 1 configuration if redundancy is important, or RAID 0 for maximum speed.

What's more, each of the drives has a USB 3.0 socket on board, so if you needed to, you could hand it to someone else in your office and let them grab

whatever data they needed off the HDD. In any case, the dock will come standard with two 1TB, 9.5mm drives and priced at \$750 for the bundle. If you later need some additional cartridges, the 9.3mm G-Drive ev will cost either \$150 or \$200, depending on whether you want 500 gigs or a full terabyte. The bigger 15mm G-Drive ev Plus will go for \$350 (it'll be sold with 1TB only). Lastly, G-Technology also announced the G-Drive Pro with a Thunderbolt port and claimed transfer speeds of 480 MB/s. That'll go for either \$700 or \$850, depending on whether you want 2TB or 4TB of storage.



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PRICE: \$700-\$850

AVAILABILITY: SPRING & SUMMER 2013

THE BREAKDOWN: THE G-DOCK EV HANDLES HEAVY LIFTING WITH DUAL THUNDERBOLT PORTS AND MULTIPLE DRIVES.





SONY ANYCAST TOUCH

The Anycast Touch is not only a sleeker incarnation of Sony's all-in-one studio, with a slider design and a manageable-enough 6.6-kg (13-pound) body; it's also the company's first such system to feature a touchscreen interface. The machine sports two touch-enabled



displays, allowing users to adjust audio controls, type via an on-screen keyboard and edit footage, among other functions. Video sources are assigned to one side of the panel, and tapping a particular input will bring up the footage in the middle preview window. It seems like an intuitive interface, especially given all the live-broadcasting controls on board — a six-input video switcher, a five-channel audio mixer, a built-in character and title generator and a remote camera controller, just to name a few.

Aside from the touchscreens, built-in live-streaming capability is one of the Anycast Touch's most unique features. On the show floor, Sony was sharing the product's output with WiFi-enabled devices. According to the company, this functionality will be useful in educational settings, at houses of worship, corporate seminars and any other events intended to reach a broad audience. The Anycast could even help news producers scale back on their own gear, letting them trade those gigan-

PRICE: TBD

AVAILABILITY:
SUMMER 2013

THE BREAKDOWN:
SONY'S LATEST ALL-IN-ONE STUDIO ADDS A NEW HARDWARE DESIGN AND TOUCHSCREEN UI TO SORT EDITS.

tic live trucks for live vans or sedans, for example. Pricing info isn't set in stone, but Sony says the MSRP will be less than \$20,000 when the device ships at the end of summer.



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KRYSTALBOARD



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If you ask most people, they'd tell you there's nothing wrong with the standard classroom setup of a blackboard and chalk, or a whiteboard and dry-erase markers. Nicholas DePorzio isn't most people, though. At Northeastern University's Husky Startup Challenge Demo Day, he took home first prize for KrystalBoard, a liquid-crystal-based writing board. His early prototype takes a few cues from Boogie Board's line of scratch pads. Functionally, they're almost identical: use a stylus to scratch your message into the panel then, when you're done, simply press a button to erase it. What DePorzio believes sets his creation apart is the ability to scale to much larger sizes. His first prototype, tossed together in

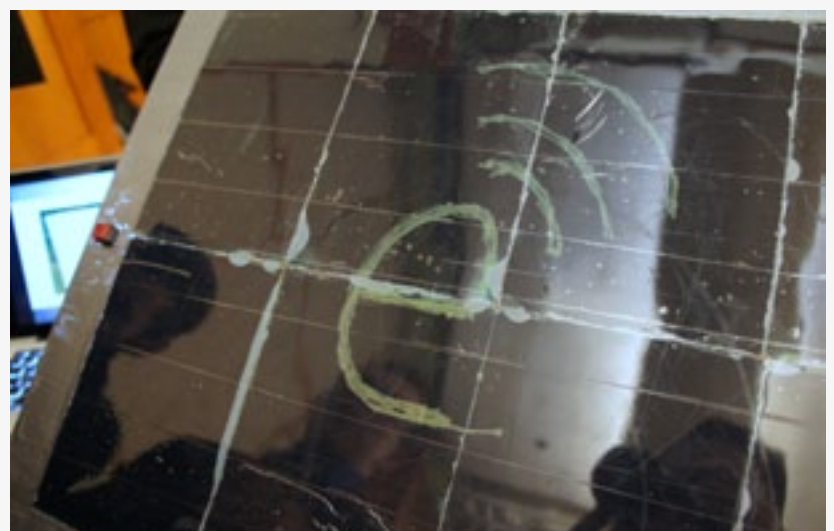
just six weeks, certainly has some rough edges (literally, the stand is made from roughly cut cardboard boxes). But, with a different selection of liquid-crystal panels, the hope is that high-contrast, classroom-sized KrystalBoards are well within his reach.

The first iteration uses a nine-volt battery to force the crystals to reorient themselves and wipe out any missives, but DePorzio is confident that a small solar panel (like the one on your 99-cent calculator) will have more than enough juice to "power" a much larger model. And "power" is a relative term, since, technically, there's no electricity coursing through the single-crystal panels. The goal is to save time and money by doing away with erasers, chalk, markers and other disposable supplies. The Northeastern student even believes he can get the cost of materials below that of a standard whiteboard or blackboard, but only time will tell on that one. Though, taking home a large novelty check should give the fledgling company a good head start. **D**

PRICE: TBD

AVAILABILITY: PROTOTYPE STAGE

THE BREAKDOWN: SOLAR-POWERED LIQUID CRYSTALS LOOK TO REPLACE BLACKBOARDS AND WHITEBOARDS IN THE CLASSROOM.



Digital Killed the Radio Star

The UK's PRS for Music has announced that the cash generated from online music licensing has surpassed that of radio for the first time. The society's 2012 report reveals that digital royalties brought in £51.7 million (\$79.6 million) from stores, ringtones and subscription services, compared to the £47 million (\$72.4 million) generated by folks listening to the wireless. The rest of the motherland's music industry, however, has less to celebrate, thanks to big drops in physical media sales, people shunning pubs and clubs as well as big drops in live music events. You know, it's almost as if it won't be long before you'll only be able to buy music online. — *Daniel Cooper*

UK MUSIC ROYALTY REVENUE COLLECTED BY SOURCE (£ MILLIONS)



SOURCE: PRS FOR MUSIC, UK





Facebook Leans In

By Kurt Eichenwald
Vanity Fair

It's a big month for Facebook. Last week, the company unveiled Home for Android, its new mobile interface that it describes as “the next version of Facebook,” and this week sees the release of both the Facebook-laden HTC First smartphone and the Home launcher for select other Android phones. This piece from Kurt Eichenwald for *Vanity Fair* is the result of one of a few interviews Mark Zuckerberg granted for the launch event, and offers an in-depth look at how the company got here and where it might be headed. For more from Zuckerberg himself, check out Steven Levy's interview at *Wired*.

PHOTOGRAPH COURTESY OF FACEBOOK

'Android Before Android': The Long, Strange History of Symbian and Why It Matters for Nokia's future

By Jo Best, *ZDNet*

It's easy to forget now, but it wasn't *all that* long ago that Symbian was the leading mobile operating system — and with it, Nokia was the leading smartphone maker. Here, *ZDNet*'s Jo Best looks back at its legacy, and the parallels that are now emerging as Nokia's Series 40 platform attempts to compete with Android on the low end as Symbian once did on the high end.

OMNI: The Forgotten History of The Best Science Magazine That Ever Was

By Claire Evans, *Vice Motherboard*

We've written about *OMNI* here before when back issues of the magazine first appeared on the Internet Archive, but those looking for some of the history behind the magazine can get some added context courtesy of this piece from Claire Evans, which includes insights from some of the people behind the seminal publication.

How ICIJ's Project Team Analyzed the Offshore Files

By Duncan Campbell, *ICIJ*

The International Consortium of Investigative Journalists broke news last week when it revealed the results of its offshore leaks investigation, and it also offered this extensive look at how it all came together, starting with a tough-to-crack hard drive containing some 2.5 million files.

Steamrolled by Big Data

By Gary Marcus, *The New Yorker*

Few buzzwords have gained as much traction in recent years as “Big Data,” and while it may not all be hype, Gary Marcus suggests here that much of it could be tempered “with caution and a sensitivity to when humans should and should not remain in the loop.”



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EXTREME TAKEOVER: HOME EDITION

DISTRO
04.12.13

FORUM

SWITCHED
ON

BY ROSS RUBIN

Facebook's management doesn't see any dichotomy in the phrase, "Go big or go home," at least as far as it might pertain to Facebook Home. After being dogged for years with questions about whether the Land o' Likes would create its own smartphone despite consistent denials, the company explained that its own phone wouldn't give it the reach it would need for its more than 1 billion members. With the exceptions of the iPhone and the Galaxy S series, a successful handset today might sell 20 million units. That's a number that many services would dream of reaching, but it's just one-fiftieth of Facebook's user base.

And yet, Facebook Home will start out factory-installed on only one device: the HTC First, a mid-range Android device available exclusively from AT&T. It will be available as a download from Google Play for a handful of other popular Android handsets, including the Galaxy S III.

Facebook Home hardly represents the first time a company has taken the core of Android and extended it into

something to call its own. Other examples include the Amazon Kindle Fire and Barnes & Noble Nook tablets, which have taken different approaches in terms of the extent to which they support generic Android apps.

The short-lived Fusion Garage Grid10 tablet also created such a distinct layer atop Android that the company dubbed it a new operating system: GridOS. However, while the company dissolved before any GridOS apps could be released, the tablet could run a wide range of Android apps downloaded from Amazon's Android app store. And beyond tablets, products such as the OUYA, GameStick and NVIDIA's Project Shield seek to create their own optimizations or distributions for Android apps.

In several ways, Facebook Home is less of a customization than many of these attempts. For example, unlike with Amazon's tablets, Facebook Home preserves Google Play. This will make it easy to get, but also easy to remove. And so, Facebook Home faces a dual challenge.

On one hand, unlike with Facebook's native app, Home requires users to make a choice around how their



“HTC has been known to try lots of things in the name of being first. Some of these have been significant... others, like the FLO TV, didn't pan out.”


phone works. Facebook is also not the first company to make an impassioned plea for putting people at the center of the phone experience. This has been a key benefit touted by Microsoft for Windows Phone, albeit one that hasn't been a compelling enough proposition to dramatically boost Windows Phone's market share yet.

Still, Facebook Home would seem to get around some of the challenges Windows Phone faces by not forcing consumers to choose between a people-centric, top-level experience and broader selections of phones and apps. And then, of course, many might not be sympathetic to the idea that a phone should put feeds of your social circles front and center. Apple, certainly, has rejected that notion. And as Switched On recently discussed, BlackBerry has put the message, not the messenger, at the center of BlackBerry 10.

The tougher proposition for Facebook Home will be getting it pre-

installed on devices. Sure, HTC was willing to sideline its carefully crafted latest version of Sense — which also includes a feed function — to accommodate Facebook Home on the First. But HTC has been known to try lots of things in the name of being first. Some of these have been significant, such as Sprint's first WiMAX phone, Verizon's first LTE phone and anyone's first Android phone. Others, like the FLO TV personal television device, didn't pan out.

Beyond HTC, Facebook enters into what is already a contentious battle for real estate between carriers and device makers. And then, of course, there is the significant number of other phones — primarily iPhones — with which Facebook Home won't work, in part because handset companies such as Apple, Microsoft and BlackBerry specifically don't want the kind of fracturing of user experience that it creates.

Facebook remains stymied. Home is live wallpaper on steroids. In its limbo between app and operating system, it ultimately drifts closer to the former. Its ultimate significance may not be as the next version of Facebook — an ambition that it may never have the reach to achieve — but as a new breed of handset experience that customizes the phone's topmost layers according to the perceived needs of its users. Will the likes of ESPN, Starbucks, Harley-Davidson or Oprah be next to claim a Home-coming for their enthusiasts? 



WHEN TECH CAN'T SAVE US FROM ROAD RAGE



DISTRO
04.12.13

FORUM

THIS IS THE
MODEM WORLD

BY JOSHUA FRUHLINGER

SO I'M DRIVING HOME THE other night after a decent day of work, looking forward to a little run, some dinner and maybe a movie. Taking my normal north-south route along Crescent Heights, I listen to Tame Impala to calm the nerves and enter another mental state.

I'm at one of those intersections in which two lanes become one because of a parked car in the right lane ahead. I, being in the right lane, gun it a bit at the start in order to get some distance from the guy on my left.

He's having none of this, apparently.

Turns out my car is faster, though, and I edge him out. I see him wave his arms frantically, shaking them and then applauding.

At the applause, I assume he's having fun with me, so I give him a thumbs up and turn my attention back to the Tame Impala, trying to remember if I recharged my Garmin running watch,

wondering if my wife actually picked up dinner or if she was being sarcastic when she said, "I got it," during an afternoon phone call between meetings.

To those uninitiated in the art of Los Angeles rush-hour driving, making a go for it from the right lane into a single lane is both legal and normal practice. It's not something I do all the time, but if the left lane is looking crowded, I'll sometimes grab the right lane, especially if there aren't others using it to make right turns.

Turns out the guy is not having any fun. None at all. No, he's angry, and that evening, I am the object of





his ire. He passes me on the right at the next light, and I am all too happy to let him go on in anger, giving space with a couple cars between us as Swiss buffers. But half a block up, he pulls over, waiting for me. Sensing clear and present danger from a man bigger — and more aggressive — than me, I make a quick right and left over to the next block.

Halfway down this block, he reappears at the other end, coming deliberately toward me. This guy wants blood.

He crowds the center of the street, swerving into my lane, slowing down, opening his door.

“Get out,” he commands. I’m still rolling.

I measure my space and creep by, avoiding eye contact. For a moment our faces are inches apart. I expect him to bang on my window. He doesn’t.

Free, I take off to the crowds of La Cienega and Wilshire. I try to gain some distance without being dangerous for other drivers. I’m safe. He’s somewhere else.

And then on Burton, I see him. He pulls up behind me again. Close. Close enough to make me wonder if I should check my bumper when I get home. But I have my survival to worry about right now.

Then my inner nerd kicks into gear. I’m not about to try to beat this guy physically — that’s not in me — but I consider grabbing my smartphone to take a picture of him, his car and his license plate.

My mind races with all the things I could do with the technology I have at hand. I pull up my GPS system to plot out alternate routes and look for police stations. Maybe I should post pictures



“The nice woman from 911 confirms that some drivers are crazy.”

of him, his license plate and his car to Twitter and publicly shame him, turning society against Mr. Angry and eradicating Los Angeles of this nuisance.

But holding up my phone to take a picture of him seems like a bad move, one that could possibly further ignite his rage. Or maybe I could just wave my phone around, letting him know that I was calling in reinforcements.

Phone in hand, I decide that calling 911 might be a priority move.


The nice woman from 911 confirms that some drivers are crazy, and asks if I'd like the police to come to us or if I'd like to be directed to the nearest station. As I'm considering this, Mr. Angry peels off to the left. He's either noticed that I'm calling for help or has decided that he's scared me enough for one day. I tell her I think I'm going to live and she bids adieu.

And then I consider all the possible outcomes of the evening. Perhaps he wrote down my license plate number and is heading home to use the 'net to find my home address to torture me for weeks while setting my cats free and eating all my food. Or maybe he has a friend on the force and is earmarking me as a future vic-

tim of unfair citations.

Finally home, I run to the computer to see what he could possibly do to track me down. Turns out it's not so easy to look up someone's home address based on his license plate number in California. There is a metric ton of sites that claim they can do this for you, along with background checks, but it comes at a cost and takes weeks. What's more, it requires that those being looked up be notified. Technology, it turns out, at least in this case, is on the side of road rage victims.

One site, licenseplatelookup.com, doesn't display results for my plate and just about every other one I consider. After a few attempts, the site times out. Another site, reportdangerousdrivers.com, sports a look from the '90s and appears to be more of a resource to check if you've ever been reported rather than a public clearing for victims to console one another and look out for particular drivers. Myroadrage.com, though, is chock-full of reports and proves to be a much-needed salve to my tattered nerves.

At the end of it all, though, I realize that in some cases, technology can't save us. When we're panicking, stuck in emergency situations, we're tempted to reach for our crutches — our smartphones — but when confronted with our own mortality, we're left with instinct and skill. And maybe a hands-free call to 911. And a hug. And a glass of wine. 



REVIEW

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04.12.13



**Samsung
Galaxy
Note 8.0**



**OUYA
(Founding
Backer Edition)**



**Roku
3**



SAMSUNG GALAXY NOTE 8.0



The US-bound **Galaxy Note 8.0** ditches the phone functionality, but does it still make for a compelling 8-inch slate?
By **Joseph Volpe**

Overseas, it doubles as a phone. Here in the US, it's just a tablet with an S Pen onboard. For its stateside debut, Samsung's stripped the Galaxy Note 8.0 of the very HSPA+ radios that made it an 8-inch curiosity at this year's Mobile World Congress. Now, as it's primed to go on sale, the Note 8.0 has sobered up, combining a host of compelling TouchWiz software tricks lifted from its high-profile Galaxy mates into a more serious, along with a more pocketable, size.

Its 8-inch form factor may be new, but the bits used within should be plenty familiar: Sam-



sung's borrowed elements from previous products, including the Note 10.1's 1,280 x 800 TFT display (albeit with a higher pixel density of 189 ppi). Meanwhile, the Note 8.0 draws inspiration from some Samsung phones, too, with chrome accents, a bulging rear camera module and a build that manages to be reminiscent of both the Galaxy S III and Note II. What's more, it packs a 1.6GHz Exynos 4 Quad inside — yep, just like its predecessor. It'd be easy to pass the Note 8.0 off as a comfortable retread; a *Best of* edition for the Note line. In a way, it is. But, Samsung's not so daft — there's a cushy market for tablets as a second screen and the company knows this all too well. So, can it best the iPad mini as the go-to, do-everything couch companion? Or is this \$399 tablet more of a supernova for the Galaxy line? Follow along to find out.

HARDWARE

To love Samsung is to accept the company's hallmark: plastic. You can't have one without the other, and no amount of consumer uproar is going to change the company's position. Time and again, the company has defined premium by durability and a sheer abundance



The usual Samsung plastic drapes this Galaxy, too.

of software, and not necessarily by sexy industrial design. So, brace yourself for the obvious and expected jabs at what can only be described as the Note 8.0's wallflower design. It's inoffensive, unappealing and wholly forgettable — which might even be the point. And that's not just some leap of reasoning. We know from our GS 4-focused talks with Samsung's US design studio, that an appeal to the senses boils down to materials, an approach that's clearly at play here.

But, try as we might to wish the company's product line into something more refined à la HTC or Apple, the Note 8.0's unremarkable, all-plastic shell serves a purpose. It's unassumingly sturdy, soft to the touch without being slippery, light in hand without feeling disposable and just wide enough at 210.8 x 135.9 x 7.95mm (8.3 x 5.4 x 0.31 inches) to be perfectly manageable for

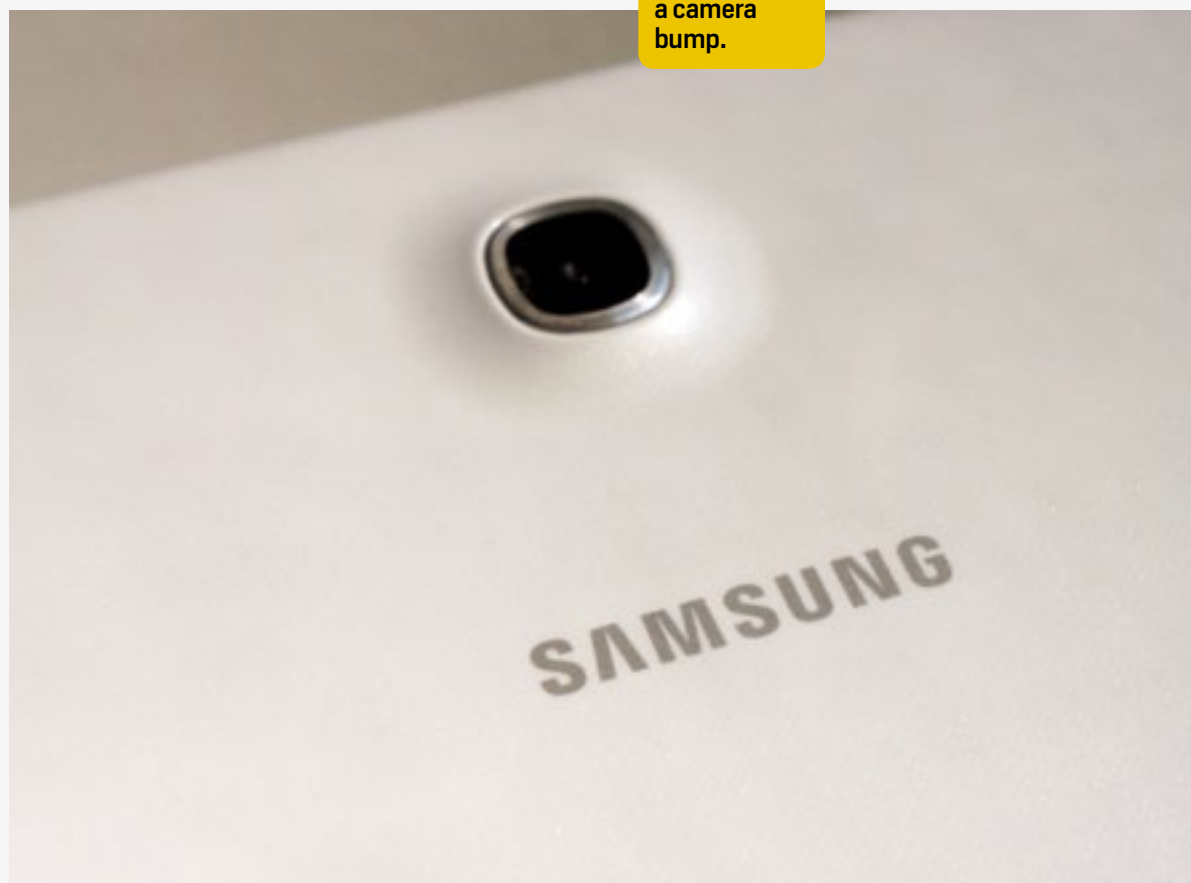


single-handed use. Unless you're suffering from Avian Bone Syndrome, the Note 8.0 won't fatigue your wrists with extended use; a portion of its weight is wisely distributed at the base to keep the tablet from falling out of your grasp.

You may not notice it initially, but Samsung's Note 8.0 isn't as monochromatic as it appears. Examine the device's backplate close-up and you'll notice a much more subdued implementation of the cross-hatching we first saw on the Galaxy S 4. And that's about as much ornamentation as you'll find on the Note 8.0; the rest of its back side is a vast expanse of white, punctuated by the hump housing a 5-megapixel camera (no flash) and an understated Samsung logo just below. Underneath that non-removable backplate lies the 4,600mAh battery.

Unlike previous Notes,

The back is dotted only with a camera bump.



the hardware keys (power button and volume rocker), IR blaster and S Pen all line the Note 8.0's right side, with a covered microSD port occupying the opposite edge all by its lonesome. This clean arrangement was a smart move on Samsung's part, one that should save consumers the confusion of fumbling around simply to raise or lower the speaker volume. Speaking of which, the dual-speaker setup on the bottom edge (over by the micro-USB port) isn't nearly as user-friendly. Whereas the Note 10.1 positioned its speakers on the front face (read: out of the way of consumers' hands), the Note 8.0's smaller size and portrait orientation mean users will have to be mindful about not covering the lower speaker when watching video in landscape.

Head-on, the Note 8.0 looks just like any other high-end Galaxy device: ca-

pacitive buttons for menu and back hug the physical home button below the display, while the company's logo, a front-facing camera and sensor reside up top. Thankfully, much of that front face is dominated by the 8-inch screen — the surrounding bezels are generous enough to accommodate thumbs with-



out hampering the tablet's overall flair. That's not to say it's a perfect fit. We did have to be somewhat mindful when reading an e-book, for example, as any accidental encroachment of the thumb onto the edge of the screen can trigger a page flip. It's not ideal, but it's also not unworkable.

As for the S Pen, allow us to nit-pick for just a moment. There's nothing wrong, *per se*, with the ergonomics of Samsung's stylus: it's essentially unchanged from what ships with the Note II, only its base is marginally larger. What irks us, though, is the slight notch Samsung's allotted for its removal, now placed on the right side of the Note 8.0. Users familiar with the Note II will undoubtedly reach *behind* the tablet, out of sheer habit, to detach the S Pen. Thus, it forces Note diehards into a bit of retraining. Again, it's a very minor quibble, but we'd prefer if Samsung kept the experience consistent for its user base.

It may be the Note line's claim to fame (and existence), but we can't shake the feeling that the S Pen is now just a relic, a built-in accessory necessary to distinguish the very first Note as a new category. A justification, even, for its then-ostentatious screen size. As we move deeper into 2013, we now find mega-smartphone displays becoming the norm. One could even argue that Note-sized smartphones might eventually even cannibalize the need for tablets proper. And yet, barring creative

professions like graphic design, there's no real productivity boost to be had, no efficiency gained by resorting to a stylus over the finger.

We can isolate only a handful of cases where consumers may prefer the S Pen: content previews, for example, on Flipboard or menu dropdowns on sites like Amazon. Aside from that, though, we're hard-pressed to care about the pen. In fact, we've found it hampers our workflow when attempting to compose an email or simple texts in Google Voice — something the keyboard's Swype-like input mode handles with ease.

DISPLAY

When the Note 10.1 debuted, we pooh-poohed its display for its fairly low 1,280 x 800 resolution. On that device, the poor pixel density wasn't just a distraction; it also detracted from the Note 10.1's usefulness as a graphics workstation. Repurposed on an 8-inch screen, however, that resolution becomes much more palatable, thanks to a higher ppi of 189. Contrast that with the lesser 1,024 x 768 IPS display and 163 ppi on Apple's 7.9-inch iPad mini and it's clear which mid-sized tablet wins the eye candy war.

When it inherited the legacy of the Note 10.1's display, the Note 8.0 also lost that other signature Samsung spec: AMOLED. No, the Note 8.0 doesn't boast the oversaturation common on the near entirety of Samsung's mobile portfolio, but the TFT LCD display



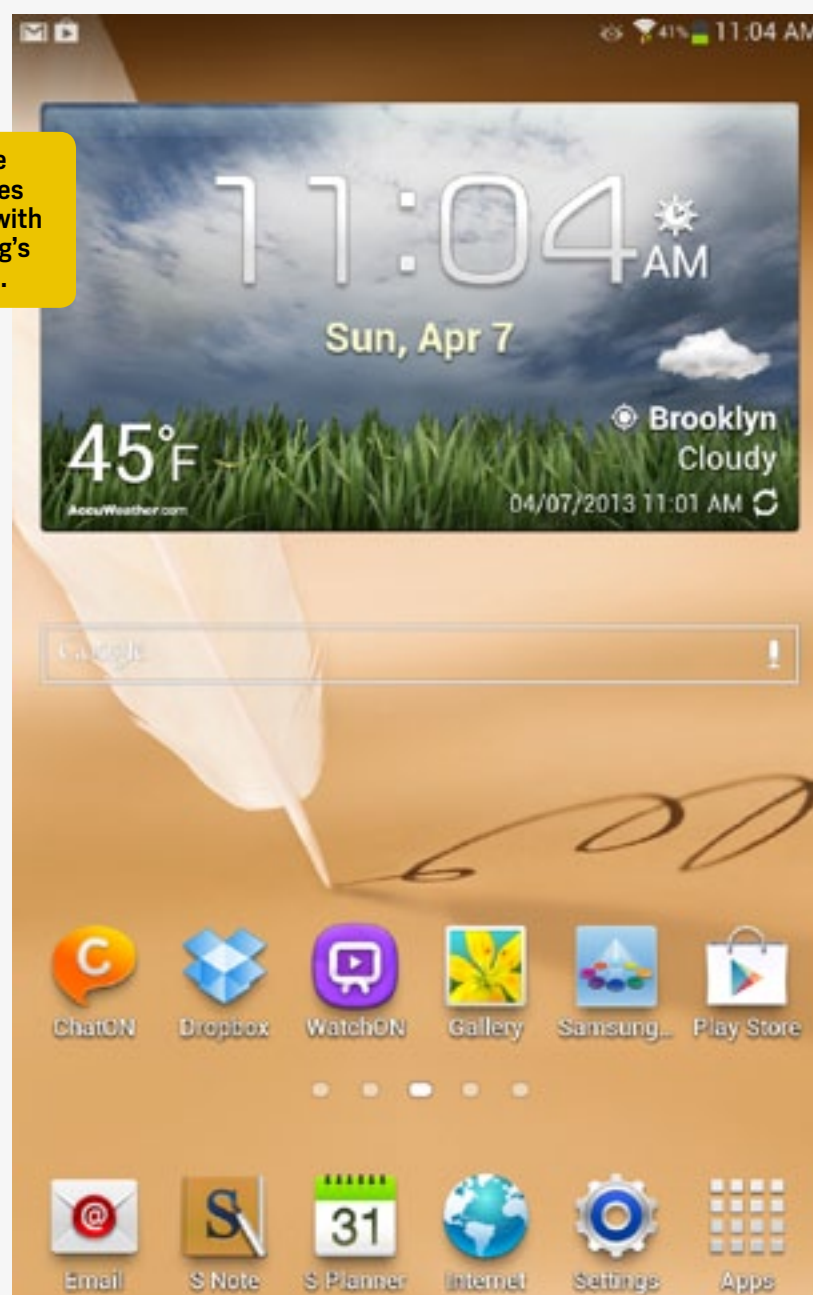
employed here is bright, balanced and readable even at full tilt. Yes, there's some washout apparent at a 15-degree turn, but it doesn't really have any meaningful negative impact on the user experience. If you aim to use the Note 8.0 outdoors, then we advise you to seek out shade. Discerning the contents of the screen in daylight, even at full brightness, was a downright chore. Handily, there is an option for *outdoor visibility* buried within the camera settings, but outside of that specific software, the setting has no effect on general-purpose usage.

SOFTWARE

The Samsung effect can be dizzying. To introduce a new Galaxy product is to unleash a virtual cavalcade of software bells and whistles. For Samsung, software is the star — not the Android 4.1.2 Jelly Bean that lies beneath and definitely not the hardware pulling it all together. It's a pattern that continues to snowball with every successive flagship device — a TouchWiz feature overload. For sure, a small subset of users familiar enough with past Galaxy flagships will be able

to find and make use of the plenitude of software features. But what about new users? Where's their crutch? Say what you will about skins, but the real terror of TouchWiz is how anti-user it becomes with every successive product generation by sheer dint of features. The list includes AllShare Play, AllShare Cast, Group Play, Smart Stay, ChatOn, WatchOn, Air View (now compatible with Flipboard), Pop-up Play, S Note, Awesome Note (a one-year exclusive), Reading Mode, Multi Window and on and on (we presume) for the perpetuity of the Galaxy.

The Note 8.0 comes packed with Samsung's add-ons.



To introduce a new Galaxy product is to unleash a virtual cavalcade of software bells and whistles.





The Note 8.0 has three faces. It can be a tool for creative expression, a multi-tasking hub or a lean-back device for entertainment. If only it still retained the HSPA+ radios of its global counterpart: it could even function as a stand-in for your phone. But let's bring it back to reality, where the US variant is but a WiFi product only. This is a tablet made for the connected, post-PC household in dire need of an all-in-one device. Want to watch live TV without having to reach for the remote? You can do that now with the inbuilt IR blaster and WatchOn, Samsung's Peel-powered

live-TV programming guide / remote control application. The app's setup process is relatively painless, prompting users only for TV manufacturer, ZIP code and service provider to get started. Of course, consumers can opt for more tried-and-true streaming services like Netflix or Hulu Plus for their video fix — both well-suited to the device's 8-inch real estate.

While eight inches is great for video consumption, not everyone's going to want to saturate their brains with moving images. And for those people, Samsung's included a special Reading Mode.



Accessible via the dropdown menu, this feature adjusts the Note 8.0's screen for people using it as an e-reader. It's not restricted to certain applications, either. Users can whitelist a selection of applications (e.g., Gmail, Kindle, etc.) from the display settings submenu, so you're not just restricted to Samsung services. In practice, though, the effect is barely noticeable.

All software aside, perhaps the greatest innovation ushered in with the Note 8.0 is the ability to tap the capacitive buttons *with* the S Pen. Take a moment and let that soak in. The Note line's greatest weakness is now gone for good — your fingers are now totally unnecessary. It's curious that Samsung chose the Note 8.0 as the showcase for this long-clamored-for addition. The Note as a tablet is still somewhat unproven commercial territory — not so with the Note as a smartphone. Samsung could've easily pumped out a Note III with this slight tweak, an Exynos 5 Octa CPU and a 1080p display and then sat back to watch while it printed money. Except, it didn't. So now we know what to look forward to on the next Note phone, and we're that much happier for it.

PERFORMANCE AND BATTERY LIFE

As much as Android purists would love to see OEM skins divorced from the hardware, the Note 8.0's combination of Jelly Bean, TouchWiz and an Exynos 4 Quad clocked at 1.6GHz paired with

2GB RAM makes for a harmonious marriage. Indeed, we've seen this setup before — you need only look to the Note II for proof of that — which means we

TABLET	BATTERY LIFE
SAMSUNG GALAXY NOTE 8.0	7:18 (WIFI)
APPLE iPad MINI	12:43 (WIFI)
SAMSUNG GALAXY TAB 7.7	12:01
APPLE iPad (LATE 2012)	11:08 (WIFI)
ASUS EEE PAD TRANSFORMER PRIME	10:17
SAMSUNG GALAXY TAB 10.1	9:55
APPLE iPad (2012)	9:52 (HSPA) / 9:37 (LTE)
GOOGLE NEXUS 7	9:49
LENOVO IDEAPAD K1	8:20
MOTOROLA XOOM	8:20
ACER ICONIA TAB A200	8:16
SAMSUNG GALAXY TAB 7.0 PLUS	8:09
LENOVO THINKPAD TABLET	8:00
RIM BLACKBERRY PLAYBOOK	7:01
ACER ICONIA TAB A500	6:55
TOSHIBA THRIVE	6:25
SAMSUNG GALAXY TAB	6:09



have no complaints where its real-world performance is concerned. The UI is responsive; navigation is brisk; animations are fluid and apps launch nearly instantly. In fact, all hums along so smoothly that it's easy to take the Note 8.0's ace performance for granted.

What you may have a gripe with is the longevity of the Note 8.0's 4,600mAh battery. To be frank: it's good, not great. While it did get us through the weekend on a single charge (about two and half days, in all), that was largely to do with careful power management on our end — and that's with WiFi always on and connected. Rather than pummel it into the ground with heavy, abnormal use, we took a more practical approach to the Note 8.0, using it for light web and Twitter browsing, bursts of e-book reading and the occasional YouTube or Netflix

video or two. More than likely, this is how any prospective owner will use the tablet, so a two-day average is what you should anticipate.

Now, when it comes to standardized testing, the Note 8.0 doesn't fare so well. Under the duress of our typical battery rundown test, which involves looping a video until the device gives out, it eked out a paltry seven hours and 18 minutes. That's with WiFi and Bluetooth enabled, Twitter set to sync at 15-minute intervals, one push email account and brightness set to 50 percent. If you take a look at our chart, you'll see that this puts the Note 8.0 on par with the Galaxy Tab 7.0 Plus and ThinkPad Tablet — both late-2011 products.

Benchmarks are another matter altogether. Unfortunately, we can't paint an accurate picture of raw performance vis-a-vis the iPad mini or Kindle Fire

BENCHMARK	GALAXY NOTE 8.0	NEXUS 7	ASUS TRANSFORMER PAD INFINITY TF700
QUADRANT	6,830	3,501	4,685
VELLAMO	1,766	1,650	1,475
ANTUTU	17,687	8,954	12,027
SUNSPIDER 0.9.1 (MS)	1,005	1,785	2,012
GLBENCHMARK EGYPT OFFSCREEN (FPS)	17 FPS	63 FPS	75 FPS
CF-BENCH	15,128	11,807	7,874

SUNSPIDER: LOWER SCORES ARE BETTER



HD — our suite of tests just isn't compatible with Apple's iOS-based iPad mini or the forked version of Android on the Kindle Fire HD. Instead, we look to the Note 8.0's next-best Android rival, the Nexus 7, for an apples-to-apples comparison. That ASUS-made tablet might be getting up there in age, but its mix of pricing and performance has proven to be a hot seller for Google. But as you can see from the scores, its Tegra 3 and lone GB of RAM simply can't hold a candle to Samsung's Exynos 4 Quad and 2GB RAM. The Note 8.0 all but smokes the Nexus 7 (save for an inconsistent framerate result), even notching a nearly sub-1,000ms SunSpider score.

CAMERA

We've resisted it as much as possible, but the people have spoken and those people use their tablets as cameras.

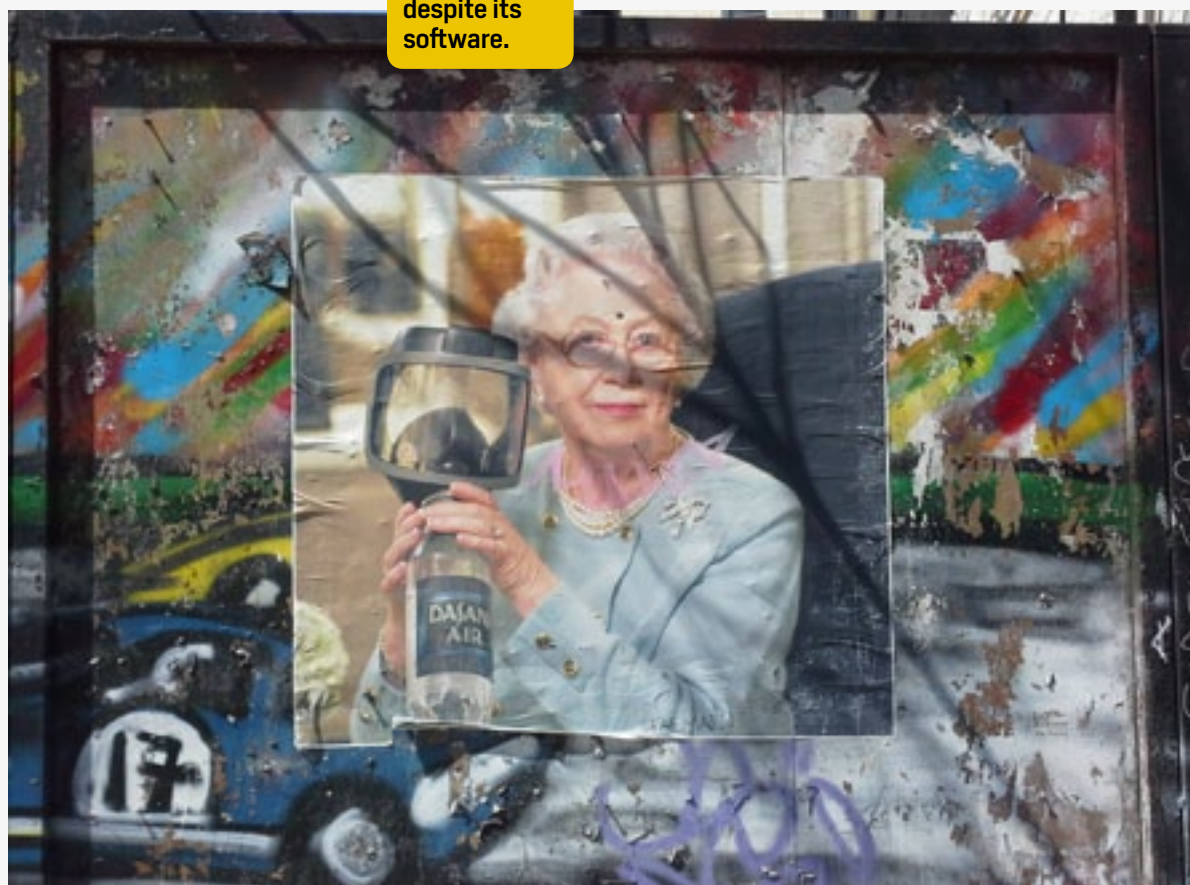
We know because we've seen it in the wilds of New York City (mostly around tourist sites). We've even seen it at press events. So, we'll refrain from knocking the ridiculousness of it all and just get to the point. The Note 8.0 has a 5-megapixel rear camera and no accompanying flash. If you ask us, that omission on Sam-

sung's part should clue you in as to how seriously the company takes imaging on a tablet. The camera's there because it has to be, not because it's remarkable, but it ain't half-bad either.

The Note 8.0's camera software falls short of the polish and comprehensiveness of, say, the Galaxy S 4, but it's not entirely lacking, either. The usual suspects are all here — scene and shooting modes, filters and toggles for ISO, exposure and white balance — but you won't find much need for them. The Note 8.0's default shooting mode does a superb job of capturing scenes, be they landscape, portrait or even macro. The same goes for the autofocus, which you can also tap-to-adjust, though we found little need to do so. On the whole, color reproduction seems balanced with just a slight

loss of finer detail evident in shots with a greater depth

The camera does a decent job despite its software.

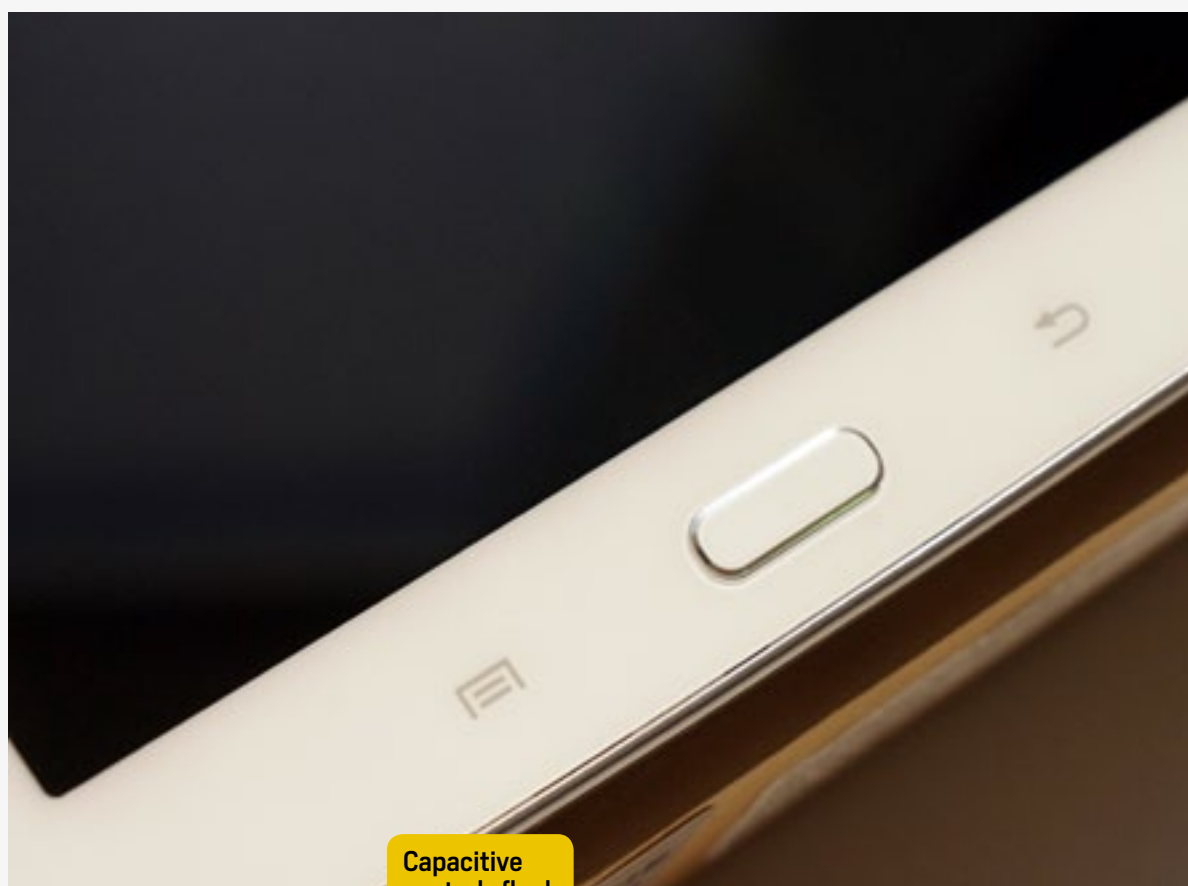


of field. As you'd expect, fully zoomed-in shots yielded incredibly blurry images, but set the focus to macro and you should be pleased with extreme close-ups. Suffice to say, the Note 8.0's camera should more than adequately service soccer moms sitting on the sidelines.

Our 720p video samples appeared washed out and delivered choppy playback with a noticeably low framerate. Towards the end of our clip, the Note 8.0 jumped a few frames causing a moving cab to magically pop forward. On the other hand, the audio quality is remarkably clear, especially given the surrounding traffic at the time of the recording. So even if you can't quite see the precious moment you aimed to record, you'll definitely be able to hear it.

THE COMPETITION

When we think of the Note 8.0, only three competing tablets spring to mind: Apple's iPad mini, Amazon's Kindle Fire HD and Google's Nexus 7. Where you'll sink your money largely depends on the ecosystem you want to buy into or have already heavily invested in. Barring that, the specs don't differ much from tablet to tablet; each of them offers 1,280 x 800 resolution, save for



Capacitive controls flank the home button on the front side.

the iPad mini's 1,024 x 768 screen.

Just as important is the price. The Note 8.0's obvious advantages are its quad-core CPU, double dose of RAM and S Pen input. But at \$399 for a WiFi-only 16GB model (the only configuration offered in the US), it might seem expensive to consumers who don't know any better, especially compared to the more budget-friendly Kindle Fire HD and Nexus 7, both available with 16 gigs of storage for \$199. That places the Note 8.0 at a \$200 premium. Its price tag becomes slightly more tempting when you contrast it with the \$329 Apple charges for the iPad mini. And, even still, it's only by a difference of \$70. Given that, Samsung must convince consumers that a dual digitizer with pen support is worth the premium. If it is indeed a stylus you're after, though, well, you know where to go.



WRAP-UP

Given that the Note 8.0 reads like the greatest hits of Samsung's Galaxy on paper, you may expect it to be a triumph of engineering. And, in a way, it is. With a vibrant 8-inch, 1,280 x 800 display, powerful Exynos 4 Quad processor and healthy 2GB of RAM, the Note 8.0 soars. Its skinned Jelly Bean OS is devoid of any software pitfalls threatening to muck up the user experience. Certainly, its abundant suite of TouchWiz add-ons provides extra value to consumers willing to dive deep and explore the system's nooks and crannies. It really is an exceptional second screen for the home, subbing as a content hub for video and TV control with WatchOn, as an optimized e-reader thanks to the LCD-dimming Reading Mode and as a productivity tool bolstered by dedicated S Pen apps, Polaris Office and Awesome Note. True, the battery life leaves something to be desired, but apart

from that, the Note 8.0 seems to have it all, do it all and do it well.

So what's the kicker? There isn't one, really. We've already highlighted just how insane that \$399 price tag seems compared to all the other mid-sized tablets out there. But then again, that's a comparison to relatively old, less-powerful hardware. As we said before, the Note 8.0's competing in a league of its own — at least, for the time being. We may not be so sweet on the S Pen anymore, but its inclusion is more of a bonus than anything else. All told, the US Note 8.0 is a solid product. In fact, it's quite nearly the Swiss Army knife of Android tablets. Or, it would've been, if Samsung had just left those damn HSPA+ radios intact. **D**

Joseph Volpe is ambiguously ethnic. He is also an Senior Associate Editor at Engadget.

BOTTOMLINE

SAMSUNG GALAXY NOTE 8.0

\$399



PROS

- Sturdy build quality
- Strong performance
- Vibrant display
- Pen can now be used to tap the capacitive soft keys
- Not many tablets this size with pen support

CONS

- Disappointing battery life
- No HSPA+ option in the US

BOTTOMLINE

Even if you rarely use the S Pen, the Galaxy Note 8.0 is a solid tablet in its own right.



OUYA (FOUNDING BACKER EDITION)



Can the **OUYA** live up to the promise of a well-designed, yet affordable Android-powered gaming console?
By Tim Stevens

Most modern gaming consoles are big, heavy and power-thirsty. They dominate the entertainment centers into which they're placed and suck down hundreds of watts of electricity when they're running. They've evolved this way, growing larger and more powerful to deliver better graphics and more comprehensive gameplay experiences. So too have their talents expanded. It's no longer good enough for a gaming console to simply play games: modern systems have to be complete home entertainment devices.

Or do they? When the OUYA was announced in



July of 2012, its \$99 cost was low and its processing power as simple as its premise: a tiny little box designed to be a haven for those who want to play (or develop) good, original games. Many gamers connected with this idea immediately, helping to drive the system to an \$8 million run on Kickstarter. Plenty of others didn't, saying this would be just a cheap distraction on which to play mediocre Android games. The truth, as it turns out, lies somewhere in between.

CONSOLE

The OUYA console is a rather unassuming little thing, as you might expect

given it's basically a smartphone in a box with no display. It's a small box, measuring roughly three inches on a side, though it is fractionally taller than it is wide. The lower corners have been rounded off, tapering downward nicely to form a circular bottom with openings for a cooling fan. (Subtle vents can be found in the top as well.) It's a simple, but sophisticated shape that shows Yves Behar didn't just phone it in when submitting his design.

On the front face of the console you'll see the word "OUYA" embossed. Rotate this early

The controller is almost twice as big as the OUYA itself.



Kickstarter edition to the left and you'll find a listing of the top 11 backers, with Markus "Notch" Persson of *Minecraft* fame sitting at the top. Continue another 90 degrees and you'll find the system's inputs and outputs arrayed vertically on the back, matching the orientation of the circuit board within. On top is an input for the AC adapter; below that are micro-USB and Ethernet ports; then on the bottom are full-sized HDMI and USB ports. (Yes, an HDMI cable is included in the box.) Additionally, the console supports Bluetooth 4.0 and 802.11b/g/n.

The top of the console is covered in the same gloss-black plastic as the bottom, slightly raised to present a small, circular power button, which is honestly a little hard to see amidst this dark expanse of polycarbonate. (A significant change from the original concept renders.) Click it and the button lights up subtly as the console powers on, the only visual indication that anything is happening in there.

Inside is an NVIDIA Tegra 3 SoC,

We measured the OUYA at just about 4.5 watts of consumption during gameplay, a little less when sitting idle at a menu.

with a 1.7GHz quad-core A9 processor, 1GB of RAM and 8GB of internal storage. This puts it on par with many modern smartphones and tablets, a prognosis that won't inspire much confidence among those gamers who crave the latest and greatest in graphics horsepower, but certainly enough to run your typically simple indie game with aplomb.

Unsurprisingly, this also makes for a very efficient console. While the PS3 took a lot of heat when it launched for sucking down hundreds of watts of power when playing games, we measured the OUYA at just about 4.5 watts of consumption during gameplay, a little less when sitting idle at a menu. When suspended, the console draws about a single watt, which is the price you will have to pay for being able to instantly resume your game right where you left off.

You get USB, micro-USB, Ethernet and HDMI ports on the back.



CONTROLLER

The OUYA console offers a two-tone, dark gray and black color scheme, and so too does the controller. Likewise, it's a rather simple shape compared to most modern gaming system controllers, with few drastic curves or lines to be found. It looks closest to an Xbox 360 controller, but one that's been rather flattened.

On the front you'll find a very similar layout to the 360's controller, with dual analog sticks offset from one another, the left one shifted upward to make room for a d-pad. You'll also find four face buttons (cheekily marked O, U, Y and A going clockwise from the bottom) and a fifth button positioned between the d-

pad and right analog stick. This button, marked with the OUYA logo (a circle having the letter U within), will let you return to the OUYA main menu with a double-tap. In some games a single tap serves to pause the current game; in other titles it does nothing.

Move up a bit and you'll find a roughly 2-inch-wide flat surface that is a small capacitive touchpad, which can be used to control an on-screen cursor. Finally, four small LEDs are embedded along the top, serving to indicate players one through four.

Four shoulder buttons are arrayed much like the PlayStation 3's Dual Shock. The top two are simple, digital inputs while the bottom two are analog

The OUYA controller cribbed a few of its rivals' features.





Pop-off plates allow customizing, but tend to... pop off.



No stickers, logos or FCC-type branding to get in the way here.

That smooth black plastic extends through the center of the controller as well, but the right and left sides are covered by gunmetal gray plates that, interestingly, can be removed — the idea being customization-crazy gamers could swap on different ones later. Beneath here you can position one AA battery in either grip (yes, they're included with the console) and, when those cells are inserted, they give the controller a nicely balanced weight.

Swappable faceplates are an interesting idea, but the execution results in what can only be called a design flaw. Each plate is held on by six magnets, making them perhaps a little too easy to remove. We've seen photos from a

triggers, of the sort that fans of racing games will appreciate. Flip the controller over and you'll find... not much. It's a plain, smooth black plastic bottom that is quite comfortable to hold.

Each plate is held on by six magnets, making them perhaps a little too easy to remove. We've seen photos from a

Swappable faceplates are an interesting idea, but the execution results in what can only be called a design flaw.



number of eager gamers who opened up their OUYA boxes to find one or both controller faceplates loose in the box, which certainly opens the door to damage during shipment.

Another problem is that they don't seem to sit flush. We looked at two OUYA consoles and on one, the left plate would poke out slightly at the top when affixed. On the other, it's the right-most plate that doesn't quite fit.

Finally, and most critically, the right plate poses some serious problems to both the right analog stick and the face buttons. When you spin the analog stick around its extent, it catches on the edge of the faceplate. Additionally, we repeatedly had issues with the four face buttons getting stuck beneath the faceplate. It was most commonly the green O button, because that's the one you'll be using most frequently, but all four can and will get stuck.

Lag was a bit of a problem with the controller — not enough to be noticeable in casual games, but for those requiring more precise timing, it can be a bit of a problem. We're curious to see whether this comes down to this specific iteration of the controller or whether it's something OUYA owners will simply have to live with.

One of our consoles also had a very sticky right analog stick, which, when pushed all the way up, would stay there for a few seconds before popping back to neutral. And, we have to say, we'd have preferred concave surfaces on the

top of the analog sticks rather than the convex ones here, but that can be chalked up to personal preference.

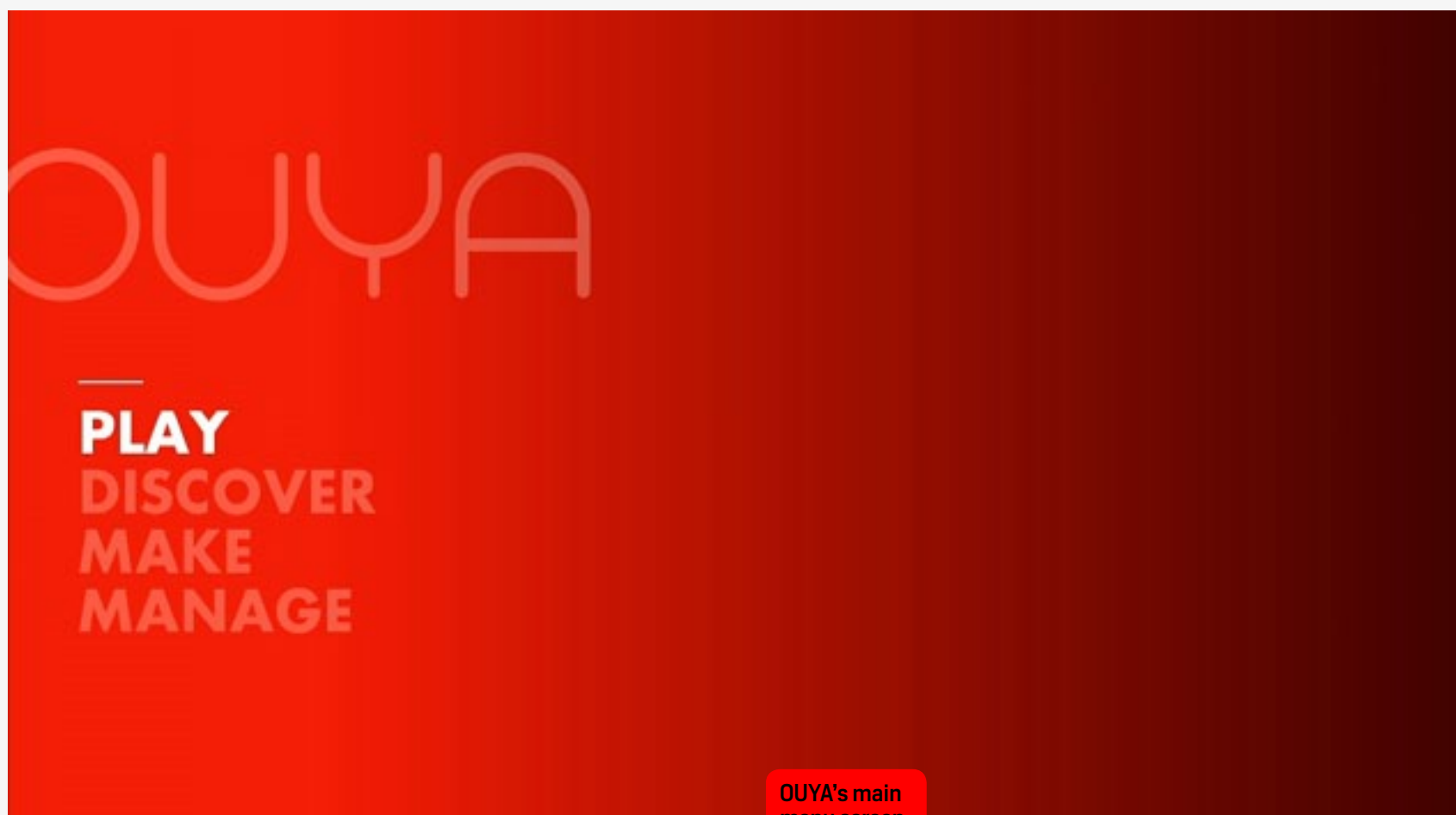
Overall, the controller is usable, but it's far from great. Sticky buttons and gummy analog sticks are the sorts of things you wouldn't even tolerate on a cheap, third-party controller and so it's disappointing to find them here on the official unit. This, we hope, is one area that is thoroughly revised before the console ships to retail this summer.

INTERFACE

The console boots into an interface that's as simple as the design of the console, but offers a vastly different color scheme. Now we move to a white and orange layout that begins with an O in the form of a rising sun and a chant of "OUYA" as the system completes its startup. You're then dropped into a menu with four options: "Play," "Discover," "Make" and "Manage."

In the first, you launch those games you've already downloaded. They're laid out in a row two-deep, stretching off to the right of the display. Things can extend quite a ways off once you've installed lots of games, and as of now, there's no way to either move these entries or sort them. Your oldest games will be on the left, newest on the right — an arrangement, we think, that will prove backwards in the grand scheme of things. There's an option to press Y to search by name, but as of now that doesn't seem to work.





OUYA's main menu screen offers a minimalist design.

Searching thankfully does work in the Discover section, which takes you into the OUYA store. There are also a few categories to dig through, like Featured and one called Go Retro that includes a seemingly random subsection of the retro games here. You can also browse by genre if you like.

Each game is presented with an image showing its logo — the modern equivalent of box art. From here you can press the O button to get more information about the title, including a few screenshots and a simple description. Part of the OUYA hallmark is that every game can be downloaded for free, which is nice, but sadly there's zero indication of how much a given game actually costs.

That is, presumably, because many games have vastly different concepts of

what you're buying. Some are simply free to play. In *Stalagflight*, you're asked to buy virtual slices of pizza. *Pinball Arcade* is free, but asks you to buy tables (\$4.99 each). *Final Fantasy III*, meanwhile, is straight up \$15.99. The flexible in-app purchasing options certainly put a lot of power in the hands of developers, but for consumers it could get a little confusing.

Through the Discover interface, you can also dive into the Sandbox, where dozens of early alphas and betas of games live. We found a few gems buried in here, but all are very rough around the edges and are all just lumped together numerically. Finding anything worth trying is a crapshoot.

The Make section is for developers, allowing one to download new builds of software, while Manage allows you to



modify console settings. Settings are, at this point, incredibly limited. You can't, for example, modify your credit card information, change the output resolution of the console, set any sort of parental controls, change the layout or color scheme or really do much of anything beyond establishing a WiFi connection or pairing another controller. You can, though, dive into the standard Android 4.1 settings page, which is a bit jarring coming from the clean, white and orange interface.

GAMES

OUYA indicated 104 games would be available at launch, a number that is quite astonishing when compared to your average big console release. Indeed, there are some very good ones in here, but we must deliver the very important caveat that the vast majority of these titles have already been released elsewhere — some a very long time ago. If you were looking for original, exclusive, high-quality titles, you won't find many.

That said, if you haven't been making much of an investment in the Android gaming scene already, or don't keep up to date on the indie gaming scene on other platforms (XBLA, Steam, etc.), then you're more likely to find the selection here appealing.

As mentioned above, pricing is all over the place, but most games can be purchased for less than \$5, with *Final Fantasy III* being the notable exception at \$15.99. All games offer some aspect

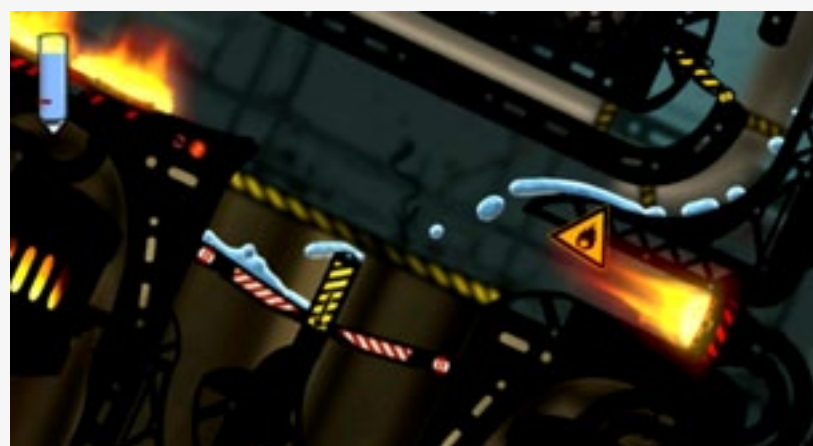
of free playability, whether it's a few free levels to get you hooked or a limited-time demo. Here are a few highlights.



FINAL FANTASY III - \$15.99

This is the hallmark title of the OUYA launch and indeed looks and plays quite well. That said, it looks and plays basically identically to the version that was released on Android nearly a year ago, and iOS even earlier than that.

Also on: Android, iOS, consoles



PUDDLE THD - \$4.99

This simple, physics-based game has you tilting the world to move a puddle of liquid through mazes, avoiding open flames and the like. Graphics are simple and clean, but don't hold a candle to similar console-exclusive titles, like *Mercury* on the PSP.

Also on: Android



**GUNSLUGS** - \$1.99

This is an action-packed side-view shooter that fans of the *Metal Slug* franchise will probably enjoy so long as they don't mind the pixelated graphics and simplified gameplay.

Also on: Android, iOS

**WIZORB** - \$2.99

Perhaps our favorite OUYA launch title. This game has been on Steam and iOS for ages, but still hasn't seen a proper Android release. We're glad to see it here, offering a fun mix of RPG gameplay and *Breakout*-style brick-breaking. It's a ton of fun.

Also on: iOS, Steam

THE BALL

Portal fans, this is about as close as you're going to get on OUYA for now. This Unreal Engine game is also one of the better-looking first-person titles on the console, but still we're talking graphics more or less on par with 1999's *Quake*

///. It's reasonably fun, if a bit slow, and annoyingly you can't change the controller inversion, but it is completely free to play.

Also on: Windows

SYDER ARCADE - \$2.99

There are plenty of space shooters and many of the side-view variety in the OUYA store, but *Syder Arcade* is one of the most fun. Curiously, though, it's priced at \$1 more than it is on the Google Play store. Marco from Studio Evil wrote in to let us know that the OUYA version offers additional features (like custom graphics types) and greater difficulty than the Android release, thus the increase in price.

Also on: Android, iOS, OS X, Windows

**PINBALL ARCADE** - \$4.99 - \$7.99 per table

With plenty of pinball fans on staff we couldn't resist trying this one out. The pinball layout naturally works a little better on a phone or tablet held in portrait mode than on a 16:9 widescreen monitor, but the gameplay is otherwise identical to the Android or iOS versions. That said, the graphics on the tables don't hold up on a big-screen HD display as well as they do on smaller, mobile displays.

Also on: Android, iOS, OS X, consoles





The OUYA runs on only 4.5 watts of power during gameplay.

WRAP-UP

The version of OUYA shipping now should be considered a beta release, and anyone hoping for anything more is in for some disappointment. It's simply not ready for retail. The system is rough around the edges in many ways, quite literally when regarding the controller, but the interface and menus also could use work.

And then there is, of course, the game selection. There are quite a few titles here worth playing, but virtually all of them have been seen elsewhere in one form or another, which makes the initial

offering a bit hard to get excited about. Additionally, the vast majority are what we'd broadly call "mobile" games: simple experiences and simple graphics that are fine for casual play, but lack the kind of immersion you might want when you get settled in at home on your couch.

So, is the OUYA a revolution in console gaming? No, it isn't — not yet. But it's early days still. As of this writing there are roughly two months until the system launches at retail — time enough, we hope, to flesh out the interface, fix the controller and maybe, just maybe, line up a few new games worth getting really excited about. We'll be back with a full review of that version when it ships. **D**

Ben Gilbert, Edgar Alvarez and Zach Honig contributed to this review.

Tim Stevens is Editor-in-chief at Engadget, a lifelong gamer, a wanna-be racer, and a born Vermonter.

BOTTOMLINE

OUYA (FOUNDING BACKER EDITION)

\$99



PROS

- Low cost
- Small, efficient
- Easily hackable

CONS

- Controller has numerous flaws
- Very limited initial game selection
- No game pricing in store

BOTTOMLINE

The initial version of the OUYA shows promise, but it needs a lot of polish before the final retail release if it wants to impress gamers.



ROKU 3



The **Roku 3** gets a software boost and a streamlined shell and continues to keep streaming simple
By **Richard Lawler**

Roku's media streamers have carved out a notable niche for themselves, with what started out as a Netflix box, but quickly grew to include hundreds of other entertainment options. Whatever they've lacked in style, they've always made up for with an easy-to-navigate menu and remote, not to mention low prices. In fact, they've become our default recommendation in the set-top box category, and now the company is back with its third iteration.

Its approach hasn't changed: the Roku 3 is still a simple \$99 box that brings internet con-



tent including video, some simple apps and even games to your TV. But this one is touted as the most powerful Roku ever, and the team behind it has even dared to tweak that boring, but simple menu system. There have always been some rough edges that needed polishing, along with holes in its offerings — join us to see if it's good enough to be the best.

HARDWARE

The Roku 3's design is but a small departure from the miniature hockey puck that preceded it, with a shape that bulges and flows with fewer sharp edges. It's still all black with just a small purple tag and painted-on "Roku 3" label — something you probably won't see again once it's hidden away within your entertainment center. The grippy material on the bottom covers less area than the Roku 2's, but thanks to a slightly heavier weight, it seems to hold its placement better, where the 2 would occasionally fall victim to dangling HDMI cables and the like.

One element is missing this time around: the breakout port that provided support for analog video on the Roku

The Roku 3's design is but a small departure from the miniature hockey puck that preceded it.

2 XS has disappeared. If you're living an all-HDMI lifestyle, you'll probably never notice, but owners of older TVs or visitors to such forgotten hideaways should prepare for disappointment. The SD card and USB ports remain, however the power adapter has changed slightly from the previous gen — it looks the same, but it won't plug into older models and vice versa. The new Roku is packing dual antennas inside and we didn't have any problems connecting to home or hotel networks in our testing, although we'd never had a problem picking up a signal on the old box either. There's also an upgraded CPU, but without detailed performance specs, we'll consider it later by judging how the software runs.

The remote is how many users will interact with their Roku, and thankfully that remains largely unchanged. The switch to WiFi Direct for communication with the box, plus a headphone-out and small volume control buttons, have not noticeably affected the size, shape or feel. That's good news for existing users, who won't have to relearn anything, and its dreadfully simple setup is easy to pick up for newbies. The d-pad is responsive when navigating through menus, and the back and home buttons still function as consistently as ever within the apps. One thing that might be nice would be the ability to control the TV's volume with those side-mounted buttons, just to cut down on any potential remote swapping. The Roku 3 still supports IR control too,





The Roku 3 has done away with analog video connections.

so if placed correctly, your universal remote will take over without a pause. Unfortunately, there's currently no support for HDMI-CEC control for features similar to those found on the Roku Stick.

As far as the new audio-streaming capability, we didn't have any problems listening to Netflix, Hulu or Amazon with headphones plugged into the remote's jack. The stereo sound was clear to our ears, however we suspect you'd be well-served by tossing the bundled earbuds and using any others you may have lying around. We tried running the batteries down, but despite 20-plus hours of headphone-equipped streaming plus additional regular use, we're

still on the original set of AAs with no low-battery indicator in sight.

SOFTWARE

While the Roku 3 features hardware improvements both inside and out, its software has received the most TLC this time around. Users will immediately notice a difference in the UI: instead of the old horizontal layout, there's now a grid of icons, which has greatly increased the amount of information on-screen at any given time. Roku has taken a page out of the classic gaming console's book and it shows — like the evolving experiences on (most notably) the Xbox 360 and the PS3, the new screens also include a healthy amount



of promo space for additional channels and / or content. Still, the navigation is simple and the ad / promoted space is far enough out of the way that we don't anticipate it bothering users. Overall, the change works as intended, offering quicker access to the channels you already know you want and bringing to light channels most users may not even know exist from its catalog of 750-plus.

The apps themselves have remained the same for now, although a number of the more recently released ones (Spotify, Amazon) have been chugging noticeably on the Roku 2. There's no hint of that here, with the upgraded CPU capably handling each option we tried. One minor annoyance remains: not every channel has the same features. For example, pressing down on the d-pad doesn't always reveal picture quality or time left information. In our limited testing with Plex, the app loaded much more quickly and began streaming videos faster. Video performance seems to be the same between the newer and older units, while forum posters report the Roku 3 could more capably handle their streaming 1080p MKVs, though YMMV. One other addition is the opportunity to change the UI with different themes. It's not a major change, but we tried out a few and found them

Users will immediately notice a difference in the UI.

pleasant enough, without any that negatively affected the experience.

Still fresh on the software front is a feature that actually debuted late last year — Roku's cross-provider search. While other devices (TiVo, Xbox 360) and services (Flixster, TV.com) offer similar functionality, Roku's implementation comes out on top, especially with the upgraded hardware. If you're really trying to find a particular movie, particular actor, et cetera, one of the included services will have it and you can reliably and quickly find them, especially if you're using the iOS or Android mobile apps for a keyboard. Of course, limited selections on subscription video services mean most of what you'll dig up will cost more money to stream, assuming it's available online at all. That said, Roku's wide coverage of services and lack of a monthly service fee make it an ideal solution.

Regarding those mobile apps, we didn't notice any substantial updates. And that about sums up our thoughts on the software changes — that they don't go far enough. If you were expecting significantly expanded support for different file formats / codecs, it's not here; the list of new channels is (for the moment) limited and even the updated UI will appear on older boxes within the next few weeks. We've seen Roku continue to mold its players via updates and we expect no different from this one, but today, the difference in experience from 2 to 3 doesn't feel like a gen-



erational leap.

We'd like to see Roku do more to become an entertainment hub / extender with cloud-based games or more apps that tie into pay-TV services like Comcast or DirecTV. It's already made strides in that direction with channels like TWC TV and HBO Go, plus a few games / apps, and it feels like the platform has a considerable amount of headroom going forward. It's greedy, sure, but many with a Roku can envision a future where it's the only box connected to their TVs, and the software hasn't quite brought it there yet.

THE COMPETITION

Compared to other boxes in the segment, the Roku's standing has stayed largely the same. If you're looking for integration with Apple's iLife, the Apple TV with support for AirPlay streaming of music, video and games will consistently win out, despite fewer options for native apps. If you'd like to bring your own content to the box via a library of rips, downloads or otherwise, the WDTV Live family offers more consistent file / format support, network connectivity and a fleshed-out local player interface, however having a Plex client here helps to even the playing field. The Roku 3's strengths aren't exactly game changers (yet), but as a mostly platform-independent box that offers access to many of the media services you probably already use for a reasonable price, its place remains secure.

Some of the new Roku's biggest com-

The Roku 3 replaces the Roku 2 XS, and unless you require an analog audio out, it's an upgrade in every way.

petition for new buyers will come from its own predecessors. Currently, the Roku 3 replaces the Roku 2 XS, and unless you require an analog audio out, it's an upgrade in every way for the same price. The difference in the software experience will be easier to evaluate once the older boxes have been updated with the new menus — due next month — but the value proposition here, again, remains mostly the same. The \$99 box offers several features you may never take advantage of over its lower-priced brethren (1080p, gaming remote), but, particularly with the processor difference, if you're planning on using it for more than just a Netflix box, this is the only real option right now. We've already seen many apps require the Roku 2 and up, and future-proofing for whatever's down the road is not so expensive that moving down the line makes a lot of sense.

For those who already own a Roku, this makes a worthwhile replacement if you're ready to pass that box off to a friend or move it to another room. That said, we'd probably wait a bit longer to see exactly what software tweaks, up-





Sharp edges give way to smooth curves on the new Roku 3.

grades and differences come out in the future. A faster, smoother-operating box and the remote control / headphone feature are nice to have, but not at \$99.

WRAP-UP

Just like the Roku players before it, the Roku 3 is the easiest-to-recommend media streamer on the market. An appealing package of services, accessibility and price has gotten even better with this round of updates, and we expect it to

keep improving over the coming months. YouTube continues to stand alone as the oddly shaped hole in Roku's streaming-channel library, which can certainly be an issue when you're searching for cat videos, but an abundance of premium content helps keep that issue hidden in the background most of the time.

Any failure of the Roku as the one true set-top box similarly fades when you look at its competition, all of which falter in one or more areas; whether DVR, game console, media player or HDMI-connected PC, they suffer from complicated UIs, subscription fees or high upfront prices that the Roku just doesn't have. We just want to lean back and watch, and despite having room for improvement, the Roku 3 still does that cheaper, faster and better than the rest. **D**

Richard's philosophy for life is based entirely on the movie Buckaroo Banzai.

BOTTOMLINE

ROKU 3 \$100



PROS

- New UI is a welcome improvement
- Upgraded CPU eliminates performance issues
- Simple, capable and relatively cheap

CONS

- Still no official YouTube or DLNA support
- No analog AV output

BOTTOMLINE

The Roku 3 keeps everything that's made the brand successful and ushers in some welcome improvements, all without boosting the price or ruining the simple setup.



THE ENGADGET INTERVIEW

Elon Musk

The co-founder and CEO of Tesla Motors discusses the process of perfecting their EV lineup and offering a viable eco-cruiser for the roads ahead

By Tim Stevens

PHOTOGRAPH BY WILL LIPMAN



“IT DOESN’T HELP TO HAVE A CAR THAT’S CHEAP, but that sucks.” This isn’t the sort of direct language that you typically hear from a CEO these days, but this is exactly the kind of material you can expect from Tesla co-founder and CEO Elon Musk. Over the course of our conversation, Musk (who earlier co-founded PayPal and who also heads up SpaceX) went on the record calling journalists who didn’t understand the benefits of leases “dumbasses” and pledged that use of the company’s Supercharger stations will always, forever and ever, be free. Candid responses such as these are not new for Mr. Musk, having certainly caused some turmoil in the past, and they do make for quite an interesting interview. Join us as we explore why the cheapest Model S was scrapped and we ask just when we can expect the fabled, and truly affordable, third-generation Tesla.

As of now, the cheapest Model S one can buy is the \$70,000, 60 kWh option, which, just a couple weeks ago, was the mid-tier model. The 40 kWh tier was unceremoniously killed on April Fools’ Day. Few had shown interest in that most accessible version, which accounted for only about 4 percent of total orders, but there was more to it than that. “Customers recognized that it was really a hobbled car, the equivalent of a hobbled horse,” Musk tells us. He believes that people want the Model S to be their primary car, and a car with such limited range wouldn’t fill that role.

It lacked performance, too, compared to the higher-spec models. “When we were testing the 40 kWh pack, it was kind of a sluggish car,” he says. “It didn’t feel good. It



**“When
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Tesla.”**



didn't feel like a Tesla. It felt like a mediocre car." Musk, of course, doesn't want to build mediocre cars, which brings us to the monumental challenge his company faces in re-leasing its so-called third-gen car, the one that will sell for half as much as a Model S.

"Going from the Roadster to the Model S, the cost dropped by about half, and I think we can do that again."

"That's about three to four years out," says Musk. "Hopefully 2016, but I would say no later than 2017." To get there, the company has a significant engineering task ahead of it, having to reduce the cost of the battery pack and the electric drivetrain by 50 percent just to have a chance. "Economies of scale will help with that, and it'll be a slightly smaller car, so that'll help too ... Going from the Roadster to the Model S, the cost dropped by about half, and I think we can do that again."

And this is where it becomes a game of reducing cost without compromising quality. "The trick is: how to build a compelling affordable car. It doesn't help to have a car that's

cheap, but that sucks," he says. And what of the Model X SUV, which was recently delayed a year?

"The Model X is definitely going to be a better car, more smoothly executed as a result of our experience with the S. But, right now, we're highly focused on quality, production efficiency and service."

Service, Musk believes, is one of the company's shortcomings at the moment and it's the area he's most closely focused on improving. EVs, by nature, require less maintenance than your average car — no oil to change, timing belts to replace, etc. — but those who do find themselves in need of some repair have often had long waits for parts. "I think we've got a great product, but I don't think we've got great service ... It has to be the best service. I will not abide by anything less than that."

Musk admits it's not a glamorous task or one he's fond



“Superchargers will always be free. They will be free forever.”

of, but it’s an important one. He has a game plan, he says, to create “the best service program of any car” — something he slyly indicates we’ll be learning more about in the near future.

And that’s not all the teasing. Musk also promises a major announcement regarding the company’s Supercharger network is due in about a week’s time. “It’s a very exciting and dramatic — *really* dramatic — increase in the number of Superchargers and in what Superchargers can do. I think people will be really psyched.” Musk assures us that the company will meet its goal of 100 Supercharger stations, initially pegged for 2015, well earlier and that usage of those stations will “always be free.” Always? “They will be free forever.”

Like him or not, you have to admire his drive and his candor, and while last week’s leasing announcement was perhaps not quite worthy of all the anticipation that led up to it, we’re still looking forward to hearing what’s next for America’s premiere EV manufacturer. **D**

Tim Stevens is Editor-in-chief at Engadget, a lifelong gamer, a wanna-be racer, and a born Vermonter.



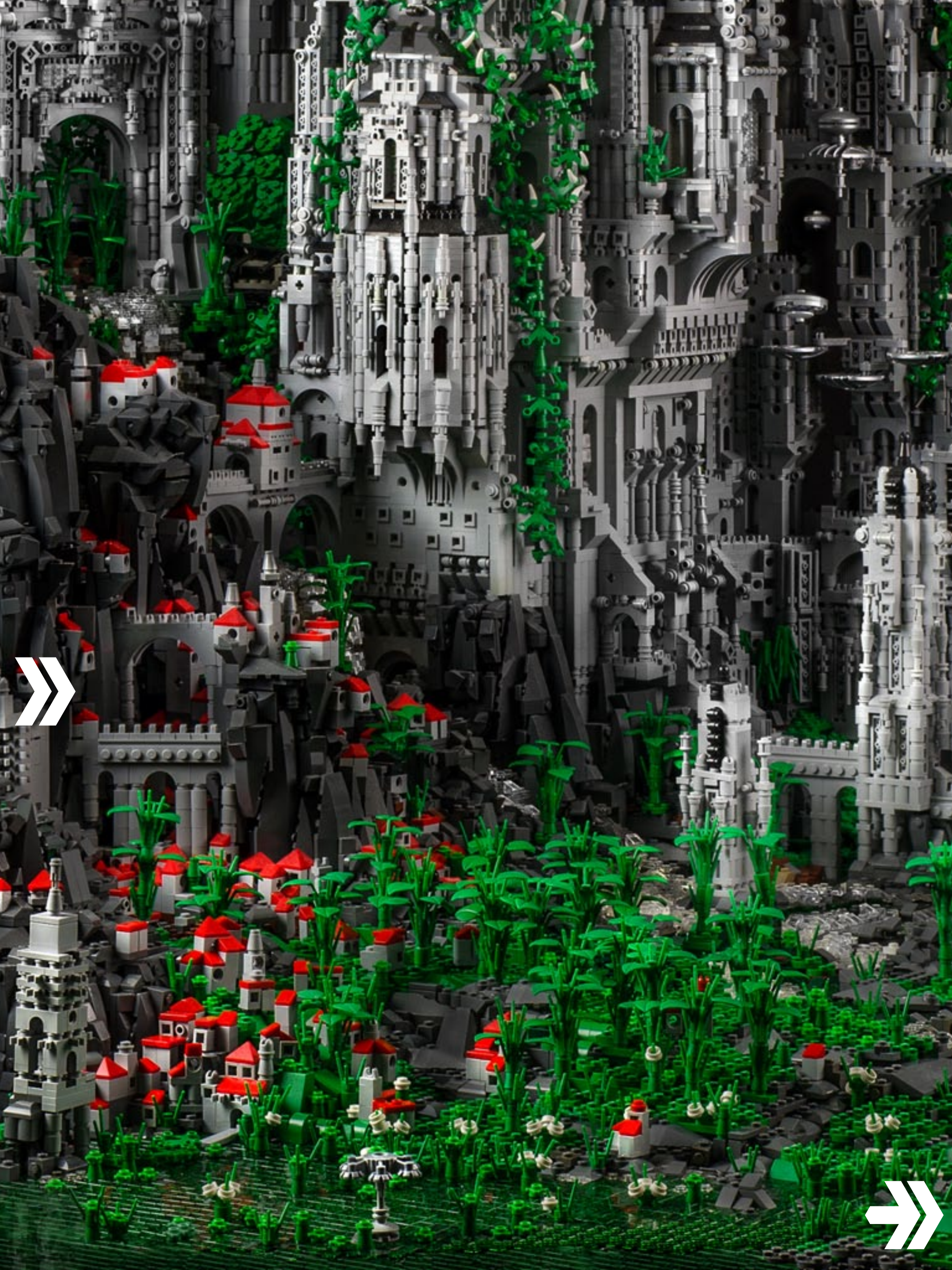
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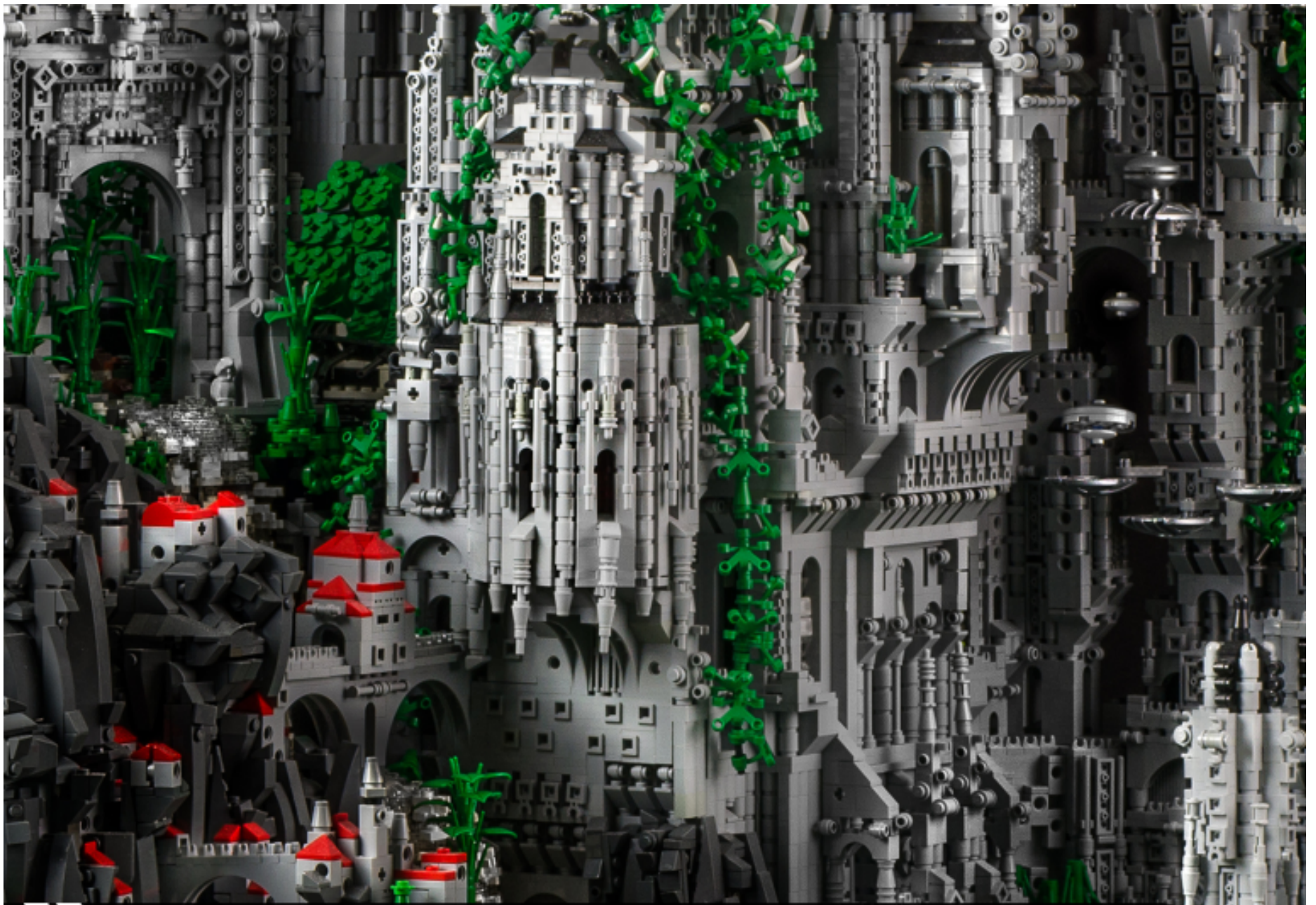
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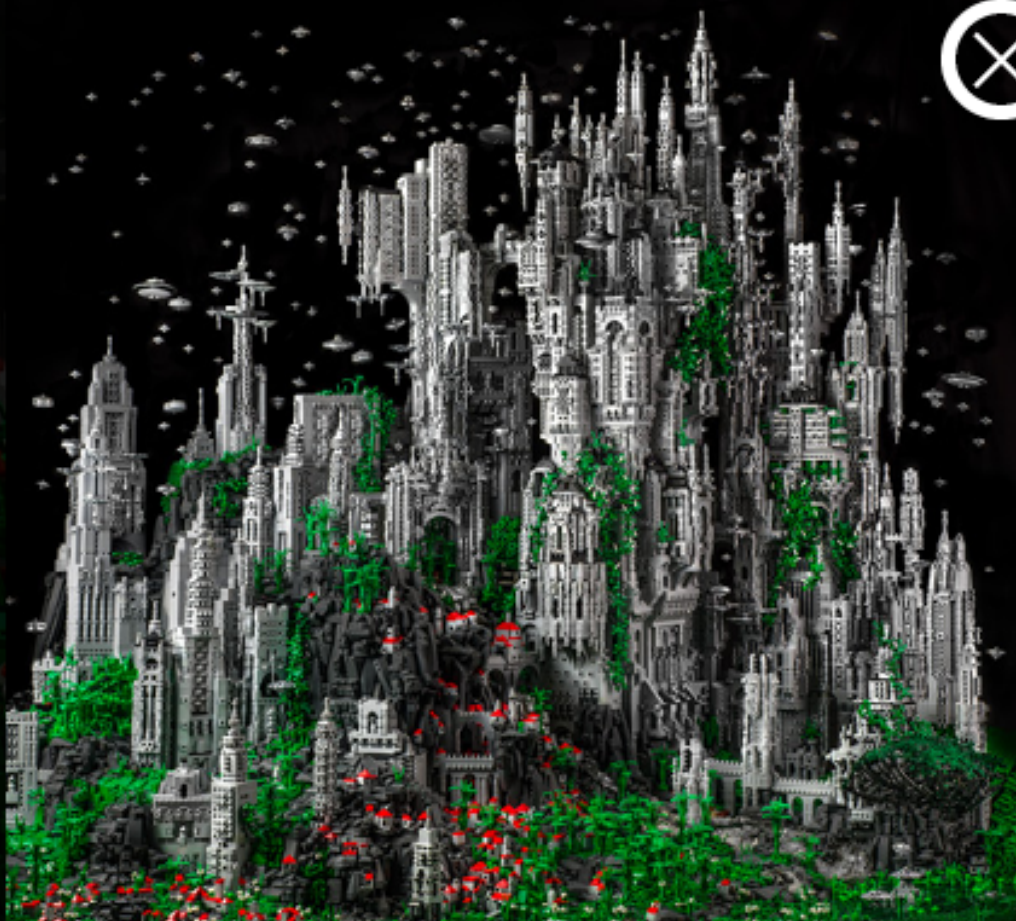
CONTACT 1







New Jersey artist Mike Doyle has been building Lego works of art for over two years. He's moved beyond the scope of his "abandoned homes" series to create his latest work, Contact 1. The 5-foot-tall, 6-foot-wide structure took over 600 hours to create, using more than 200,000 Lego pieces and is an homage to "spirituality, peaceful ET contact and fantastical worlds."



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Q&A

DANIEL H. WILSON



THE BEST-SELLING AUTHOR
and **ROBOTICIST** talks
corporate Kool-Aid and the
evils of stock market AI



What gadget do you depend on most?

Like everybody, I'm addicted to looking at my phone every five minutes. Sometimes, I'll just sit hunched in the dark and stroke its gleaming metallic curves. It is... precious to me.

Which do you look back upon most fondly?

I'm nostalgic for that big, stupid, brown TV remote from the 1980s that my brother and I used to call "the box." It was connected to the television with a brown cord, so fighting over it was more of a "King of the Hill" multiplayer mode, rather than the "Capture the Flag" mode that came later with wireless remotes.

Which company does the most to push the industry?

I try not to drink Kool-Aid. It stains your lips and makes you look like a little kid.

What is your operating system of choice?

Once, I was a computer science

undergrad and I lived in a wild land of Unix and Linux and dual boots. These days I am a humble man, content to live simply on the parcel of land granted to me by Mac OS X.

What are your favorite gadget names?

In my novel *Robopocalypse*, I named the villain "Archos." It came from the Greek root Arkhon, which means ruler. Later, I found out that there is an Android tablet maker with an identical, and equally awesome, name. Good for them.

What are your least favorite?

Too many to count. I feel sorry for all the startups that have to play the name game. That's why I'll dump a few here, for free: skankler, spoodly, cryogne-sis, canbobula, dirbler, mastivore and folliculitus. The last one is an infection you'll get from drinking champagne in hot tubs thanks to the money you made from those product names I gave you.

Which app do you depend on most?

I depend on theScore for my quietly-ignoring-all-humans-while-checking-sports-scores needs.

"I'm nostalgic for that big, stupid, brown TV remote from the 1980s that my brother and I used to call 'the box.'"



What traits do you most deplore in a smartphone?

All these new notifications and reminders and blatant attention-grabs are very annoying. Plus, it makes my phone seem desperate.

Which do you most admire?

I really like the Apple Photo Stream sharing service, because it lets me share pictures of my kids with the six or eight people in the world who actually care.

What is your idea of the perfect device?

There is no perfect device, but anything that gets iteratively better has my respect. Perfect is never good enough for long.

What is your earliest gadget memory?

It's summertime, about 6 o'clock in the morning. I'm sitting cross-legged in my underwear on the cool hardwood floor of my bedroom, playing *Super Mario Bros.* as birds start to sing outside my window.

“I always feel a sense of relief once my gadget gets its first ding, scratch or crack. I believe in using things up until they are gone...”

What technological advancement do you most admire?

I'm proud of the roboticists working on autonomous vehicles. Ask yourself, “What could I invent to save the most lives possible in a developed country?” Short of curing heart disease, creating a new world of safe transportation is the answer.

Which do you most despise?

If you have an advanced degree in artificial intelligence and you spend your days crafting trading bots that comb the stock exchanges for exploits, then congratulations! You're officially an evil douche bag.

What fault are you most tolerant of in a gadget?

Fragility. I always feel a sense of relief once my gadget gets its first ding, scratch or crack. I believe in using things up until they are gone, and that means beating the shit out of whatever gadget is within reach.

Which are you most intolerant of?

Any conniving, underhanded corporate BS designed to grab more



personal data from my life or money from my wallet. Apple, you can force a whole little wooden bookshelf down my throat, but there isn't shit on it but the *New York Times*. And there never will be.

When has your smartphone been of the most help?

Lost in a foreign country, you can surreptitiously check the map on your smartphone. Not only do you not look lost, you look like you were smart enough to have a working phone in a foreign country. Or am I fooling myself?

What device do you covet most?

High-end gaming PCs always tempt me with their neon-illuminated windows and ominous glowing logos. I look into their hearts and see gleaming processors, bubbles dancing in liquid-cooling tubes over savagely etched heatsinks, and I start grabbing for my credit card. I'm looking at you Digital Storm —

“I would love it if my phone did not give my butt the same dialing capacity that it gives my fingers.”

send me a coupon, why not?

If you could change one thing about your phone what would it be?

I would love it if my phone did not give my butt the same dialing capacity that it gives my fingers.


What does being connected mean to you?

As a freelance writer, I have been trained to cling to my phone in classic Pavlovian fashion — by occasionally receiving very good news (i.e., a reward preceded by a ringing bell). Being connected means there is a tiny probability of receiving good news — like playing the lottery on a drip feed.

When are you least likely to reply to an email?

I don't respond to emails when I am drunk or angry or any combination of the two. So if it takes two weeks for me to reply to you, well, I've probably been angry and drunk.

When did you last disconnect?

I disconnect every night between 11 PM and 6 AM. That's healthy, right? 



IN REAL LIFE is an ongoing feature where we talk about the gadgets, apps and toys we're using in real life.

MOSHI DIGITS TOUCH SCREEN GLOVES



**Nokia
Lumia 620
on Telus**

It may be warming up across much of America, but if you look hard enough, there's always a place where Old Man Winter is blowing. Be it Yellowknife or Siberia (or New York during far too many months of the year), there has long since been a need for gloves that serve two purposes: keeping one's hands warm and enabling the use of a modern smartphone. Indeed, quite a few outfits have stepped up to introduce gloves that enable the operation of a capacitive touchscreen, and I was recently able to take Moshi's Digits for a spin at our own Expand event in San Francisco.

These definitely aren't the first capacitive gloves I've worn. Most of 'em, however, are depressingly thin. As in, they're more like autumn gloves than winter gloves — and really, what's the point of having a pair of gloves that requires another

set atop them in order to keep the feeling in your fingers? Moshi's alternatives are shockingly thick, and yes, they actually kept my hands warm in low-40s conditions with plenty of wind to go around. Better still, they're lined with a grip strip that helps you maintain control of your device (and gives you a heads-up as to which side is up).

Using a phone with these takes about 10 seconds of learning. You'll notice that you generally have to apply slightly more pressure than you're used to, and you have to put a little more thought into your aim when pressing smaller icons in the corners. That said, these things just work. Pinching and zooming was flawless, sliding to unlock was a breeze and pecking away an iMessage came easily. And my hands were *warm*. The gloves themselves are well worth the \$30 asking price, and for those asking — yes, this now means I'm moving to Canada, where the cold can no longer prevent me from properly Instagramming gorgeous views of Lake Louise. — *Darren Murph*



NOKIA LUMIA 620 ON TELUS

Can you really develop a strong bond with an entry-level smartphone? I'd say so, after spending a few weeks with Nokia's Lumia 620. It's not that the phone does anything exceptionally well: it's that it's so fundamentally well-balanced.

The 620 is a pleasure to hold — small and smooth, but grippy. Windows Phone also takes care of most of the interface slowdowns that often crop up with typical low-end phones. The battery life and display quality are more than good enough to get me through the day. And yes, even the cameras are up to the job. I've snapped a few macro photos that I didn't think I could get from a phone that costs \$250 off-contract. The phone is also very individualistic: my test unit only had the sober black shell, but Telus

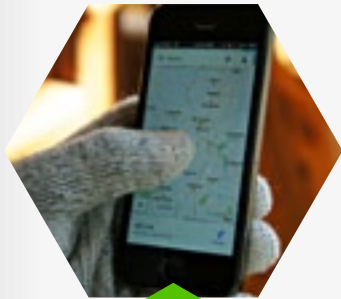
supplies a white back in the retail box, and the more exotic colors (neon green, anyone?) really add character.

I'm not so upbeat that I would shun the Lumia 920 for its lower-end cousin, mind

you. I've run into performance limits more than I'd like. The browser takes a bit too long to render pages, apps take longer than usual to resume and the 21 Mbps HSPA+ data is noticeably slower than LTE, at least on Telus' network. If you absolutely have to buy a phone on contract, the Lumia 620 currently has a lot of similarly priced competition at Telus that trumps it in performance and screen size, including the AT&T S, Galaxy S III, One X and Optimus G.

However, I can't stress enough how much of a bargain the Lumia 620 is off contract. Never mind the usual gripes about missing apps or poor compatibility with Google's ecosystem — the Lumia is cheap and cheerful enough that I honestly stopped worrying about those other factors early into my usage. Consider it the true replacement for a basic feature phone, ticking all the smartphone checkboxes without having to either spend a lot up front or else shackle yourself to one carrier. About the only better pound-for-pound value I've seen is the Nexus 4, and that says a lot about what Nokia has accomplished with its starter smartphone.

— Jon Fingas



Moshi
Digits
Touch
Screen
Gloves



The week that was in 140 characters or less

Cloaked Cannons, Funded Fiber and Force-Fed Feeds

DISTRO
04.12.13

ESC

REHASHED

@Ceramic_Bowls

The US navy shot down a plane with an invisible laser canon. An invisible laser canon. An invisible laser canon. AN INVISIBLE LASER CANON

@mrcwinn

I'd like to second
AT&T's message.
I will also personally
build a Fiber network
if the city gives me
a bunch of money.
Coming 2013.

@TheINDIEHost

Just looked at zipwhip for
the first time. Read "pom.
xml" too fast. Thought
it was something else.
#poornamechoice

@alialkhatib_

CBS & Fox threaten to stop broadcasting if the case
against Aereo doesn't go their way. Parents everywhere
are rolling their eyes right now.

@JoannaStern

Interesting to see the different takes on Facebook
Home. Apparently I am one of the only ones bothered
by a feed you can't control.

THE STRIP

BY BOX BROWN



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ESC

TIME
MACHINES

WHAT IS THIS? 
TOUCH TO FIND OUT



PHOTOGRAPH COURTESY OF AP



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04.12.13

ESC

TIME
MACHINES

SINCLAIR MICRO-6

MODERN
EQUIVALENT:
iPod Nano



Some ideas are ahead of their time. Such was the case with the Sinclair Micro-6 released in 1964. A young entrepreneur and electronics engineer in the UK named Clive Sinclair developed this unique portable radio for his company Sinclair Radionics Ltd. The Micro-6 was offered as a full DIY kit for the home-tinkerer, including all the necessary parts for assembling the matchbox-sized radio in just a single evening. Sinclair also offered a special "Transrista" watchband so you could secure the Micro-6 to your wrist, making it the latest in wearable-tech fashion.



An ad flaunts the small size and DIY appeal of the Micro-6.

PHOTOGRAPH COURTESY OF AP



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